FIGHTING FOR SAFE WORKPLACES AND HEALTHY COMMUNITIES

BLUE-GREEN COALITIONS

BRIAN MAYER

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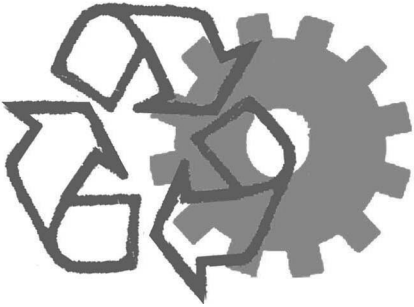
Blue-Green Coalitions



Blue-Green Coalitions

Fighting for Safe Workplaces and Healthy Communities

Brian Mayer

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Contents

Acknowledgments vii

Introduction: Blue-Green Coalitions 1

1. A Forgotten History of Collaboration 23

2. Promoting Precaution to Prevent Harm 61

3. Fighting for the Right to Know 98

4. Revealing the Hidden Perils of High-Tech 133

5. Finding the Connections 164

Conclusion 190

Methodological Appendix 211

References 221

Index 233

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Blue-Green Coalitions

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Introduction

Blue-Green Coalitions

There is a story told by members of the International Union of Electronic, Electrical, Salaried, Machine and Furniture Workers–Communications Workers of America (IUE-CWA) Local 201 about the day protestors from Greenpeace gathered outside their manufacturing plant. Located in an industrial suburb north of Boston, the General Electric Company's Saugus Riverworks—where Local 201 represents much of the workforce—has been operating since the 1950s, creating gears that drive everything from submarines to dishwashers. Saugus Riverworks has had its fair share of environmental problems, but the union there believes that the emissions released by their plant are lower than most and within regulatory guidelines. The union has historically been well connected to the community and supports a number of local organizations and initiatives. Many of the union members also belong to social organizations, from church groups to social service providers to civic clubs where they volunteer their time to improve the neighborhood.

Ask certain union members about Greenpeace and you're likely to hear about a group of crazy environmentalists that threatened the lives of the workers inside the plant as a part of a publicity stunt. As the story goes, protestors from Greenpeace rallied outside the plant gates to protest against the air pollution emanating from the plant's many smokestacks. Declaring that the Saugus Riverworks polluted the air, the environmentalists marched and chanted along the fences with their placards—much

to the dismay of the employees at work that day. As part of the demonstration, the protestors allegedly sealed air vents around the plant to both physically and symbolically keep the pollution inside. Some workers claim Greenpeace went so far as to weld the vents shut, while others recall simple pieces of plywood blocking the air from escaping. As one worker at the plant told me, "Those environmentalists want to save the whales and kill the workers."

Given this common sentiment among the workers, one might be surprised to learn that several individuals in Local 201 are leading a new movement to synchronize the interests and actions of labor and environmental organizations in Massachusetts. Over time, what distinguishes Local 201 from other union locals in the contemporary labor movement is its exceptional commitment to protecting the health and safety of its members. Prior to the alleged incident involving Greenpeace, the union had established a joint health-and-safety committee that works with the management at General Electric to establish safety practices and guidelines within the Saugus Riverworks plant. This committee is a national model for other IUE-CWA locals and other unions. Local 201's emphasis on occupational health and their willingness to bring health issues to the bargaining table in negotiations with General Electric reveals a commitment to health beyond what many other labor groups today are willing to risk.

Among the many hazards faced by employees at GE's Saugus Riverworks are exposures to toxic substances used in the manufacturing process, such as metal-working fluids that are often in the form of an aerosolized toxic mist produced during the machining process. Though personal protective equipment and operating procedures have been developed to protect the machinists from this hazard, a number of people have still become ill with respiratory conditions as a result of working with these substances. Based on this personal experience of occupational disease, several of the local's members and leaders have made the elimination of potential health hazards a priority. In doing so, they unexpectedly developed a common critique of the use of toxic substances in the production process that closely mirrored the agenda of a developing environmental and public health organization in Boston. This organization, the Alliance for a Healthy Tomorrow (AHT), works statewide in Massachusetts with scientists, public health professionals, and community and environmental activists to promote a system of chemical policy and management that calls for the substitution of safer alternatives for hazardous substances.

Building on their common interests in preventing human exposure to toxic chemicals, the AHT has made the relationship between labor and

environmental organizations a centerpiece of their organizing strategy in their advocacy work across Massachusetts. The partnership between the labor activists who participate in the AHT, several of whom personally experienced the deleterious health effects of exposure to occupational hazards, and the environmental activists interested in preventing toxics from escaping into fence-line communities and the broader environment is fundamentally about protecting health. Labor leaders from the IUE-CWA Local 201 and other labor organizations throughout Massachusetts have been able to transform their own experience of illness and the experiences of the rank and file into a political identity that mirrors the work of the anti-toxics activists belonging to the AHT, forming the basis for a coalition of labor and environmental organizations. Other blue-green coalitions, including the New Jersey Work Environment Council (Trenton) and the Silicon Valley Toxics Coalition (San Jose, California), have developed a similar approach to building relationships between workers and environmentalists based on protecting health.

My goal in this book is to examine the formation of labor-environmental alliances that focus on health issues. Health concerns are increasingly a common ground on which blue-green coalitions are developing across the United States. Activists from both movements often see health issues through different lenses, which lends a particular slant to how they approach potential solutions for reducing exposures to toxics. The coalition framework emphasizes the fundamental link between occupational and environmental health, providing an internal cohesion and a politically persuasive agenda based on the centrality of health-related issues. By engaging labor and environmental activists in a common dialogue regarding the need for cooperative action to reduce the risks of community and workplace exposures, blue-green coalitions are creating new opportunities for progressive social change.

Rethinking the Jobs versus the Environment Debate

Relations between labor and environmental movements exist within a complex web of clashing interests, electoral politics, and attempts to form enduring blue-green coalitions. At a fundamental level, there are class differences in the interests of the two movements that often perpetuate the stereotype of a "jobs versus the environment" debate that is seen as an absolute divide between workers and environmentalists. Unions are often interested primarily in protecting what remains of organized jobs and

preventing further layoffs to maintain a basic standard of living. Environmental protection, which can act as a limit on economic growth, is therefore perceived as a direct threat to jobs—driving the labor movement to ally with industry in opposition to environmental organizations (Gottlieb 1993; Schnaiberg, Watts, and Zimmerman 1986). But, as more in-depth analysis suggests, externalities such as environmental pollution and occupational health hazards disproportionately affect those at the lower end of the socioeconomic structure, the working class, which would theoretically create allies between environmentalists and organizations like unions that tend to represent working class individuals (Obach 2004a). Despite the ubiquitous nature of these environmental and health risks that have come to dominate what Beck (1992) calls the "risk society," no broad class-based coalition in the United States has emerged to challenge the environmental consequences of the capitalist system of production, as is the case with Germany's Green Party (Foster 1993).

This lack of a broad coalition is in part due to the distinct types of logics guiding the actions of the two movements. The labor movement, organized hierarchically through a national confederacy down through workers affiliated to a union local, relates to its membership in an instrumental fashion. The benefit from participating in the labor movement for workers is derived from collective representation, which is financed by membership fees. The influence of labor unions exists in a formalized relationship between capitalist enterprises and workers, which is facilitated through the state. On the other side, the environmental movement benefits from voluntary participation from its members and is organized more horizontally. Contributions to the environmental movement are obtained through a more normatively oriented logic. Environmental organizations must persuade their members that supporting their particular organization is an efficient way to act on their own individual values. In this model, it is assumed that these two very distinct logics of collective action are rooted in the class differences between the two movements and often prevent collaboration from occurring. However, when crises occur and disrupt the status quo, unique opportunities to work across class and identity divides arise. These moments of opportunity are essential in building blue-green coalitions.

Those economic and political actors with interests in the production and sale of hazardous substances who are threatened by collaboration between the two movements work diligently to prevent relationships between the labor and environmentalist movements from developing. One of the most manipulative strategies intended to create division between

the two movements is job blackmail. Kazis and Grossman (1982) define job blackmail as a strategy of intimidating workers into allying with industry by threatening to fire or punish dissenters who complain about working conditions. Environmental job blackmail attempts to refocus workers' grievances toward environmental activists, blaming their actions and resulting environmental regulations that may come from interests other than the environmental movement for cuts in jobs and growth. The tendency of many labor unions to side with capital during periods of social conflict or regulatory reform does not accurately reflect the empirical reality of the economic costs of environmental and public health protection (Goodstein 1999). Claims of job losses arising from stricter environmental regulations are most often politically motivated and unsupported by economic analyses (Freudenburg, Wilson, and O'Leary 1998; Goodstein 1999; Kazis and Grossman 1982). For the most part, however, the strategy has effectively driven a wedge between those who are potential allies based on their relationship to capital (Foster 1993).

Contrary to the allegations of industry that environmental reforms limit their growth, most research on the economic effects of these regulations suggests a positive impact on overall employment rates (Goodstein 1999). Estimates vary as to the degree of this relationship, but averages suggest that roughly two million people in the United States are employed in jobs that are directly or indirectly related to environmental protection (Obach 2004a). Goodstein's (1999) analysis of the economic impacts of environmental regulations in the United States suggests that roughly three thousand jobs are lost annually directly due to environmental protection. Unfortunately, though, the impact of environmental protection is felt harshly in a few isolated industrial sectors—in particular the natural resource extraction industries such as logging and coal mining (Freudenburg, Wilson, and O'Leary 1998). While environmental protection may have a net positive effect on job growth, its effects in these few industrial sectors tend to have a major negative impact on the communities whose economies are based on a single industry (Goodstein 1999). The relatively small economies of logging and mining towns are not able to handle major economic shifts. Furthermore, the concentration of these resource-extraction industries in particular regions of the country tends to heighten the visibility of the economic costs of environmental protection (Obach 2002).

The well-known controversy over the northern spotted owl is a classic case of job blackmail and the inability of small-scale economies to transition to more sustainable forms of production. The controversy over the

protection of the habitat of the endangered spotted owl, which was fought in the redwood forests of northern California and the Pacific Northwest in the late 1980s and early 1990s, quickly became sensationalized in the national and local media (Gordon 2004; Obach 2004a). Whereas most cost-benefit analyses of environmental regulations are complex, the spotted owl controversy was simple and visible, enabling the dramatization of the issue (Obach 2004a). Environmentalists claimed that the only way to protect the endangered creature was to designate large areas of old-growth forest as off-limits to the timber industry, which threatened the livelihood of thousands of loggers and their families. But as Foster (1993) argues, the environmental movement's position lacked consideration of class impacts in its proposed regulation. Prior to and throughout the spotted owl controversy, environmentalists failed to enlist timber workers in sustainable harvest plans and did not consider of the impact of job loss on the region's economy. Though the timber industry overestimated the severity of the environmental regulation's impact on the regional economy, a damaging blow to the relations between the environmental and labor movements was dealt at both the local and national level. Other issues related to the economic consequences of environmental protection continued to divide the interests of the two movements, from the Clean Air Act's impact on the energy industry to the Corporate Average Fuel Economy (CAFE) standards impact on the auto industry to the debate over oil exploration in the Arctic National Wildlife Refuge (ANWR) (Gould, Lewis, and Roberts 2005; Obach 2004a). A new hope for reconciliation and future collaboration was created by the so-called Turtles and Teamsters alliance that emerged following the protests outside the 1999 World Trade Organization (WTO) summit in Seattle. Mobilizing in opposition to the neoliberal trade policies of the WTO, environmentalists and trade unionists joined forces to call attention to the deleterious effects on both the natural environment and on wages and working conditions on a global scale. This event was heralded by a few as a new moment in labor-environmental relations in the United States, and the nation turned toward the major organizations participating in the protests, such as the Sierra Club and the International Brotherhood of Teamsters, to develop a common agenda (Gould, Lewis, and Roberts 2005). However, these hopes for a marriage of blue-green interests were dashed only a few years later when the International Brotherhood of Teamsters broke with environmentalists to endorse the Bush administration's energy policy, which included plans to explore for oil in the Arctic National Wildlife Refuge.

Overcoming the divisive jobs versus the environment issue is not an insurmountable task. A handful of blue-green coalitions have managed to overcome their differences and are today the subjects of a growing field of research into this blue-green phenomenon (Gordon 2004; Gould, Lewis, Roberts 2005; Obach 2004a; Rose 2000). Though this body of literature has greatly advanced our understanding of what drives the formation of labor-environmental coalitions, where they tend to form, and what issues they address, I believe that a significant trend in labor-environmental relations is largely being ignored: the importance of health-related issues as a common ground. Many of the labor-environmental coalitions examined in the past have ultimately failed to survive to accomplish their goals. Blue-green coalitions that coalesce around issues related to health, however, are better able to draw on important connections that facilitate both the continued existence of these coalitions and their political success. Furthermore, by building on the common ground of health, these blue-green coalitions are better able to create a significant discursive shift in how the two movements interact. Each new coalition increases the likelihood of a more permanent integration of the two.

Health, Labor, and Environment

Concerns about health play a major role in the history and current activities of both the labor and environmental movements. Much early labor organizing focused on the health and safety of the workforce, which faced extraordinarily high levels of risk in the crowded and dirty factories at the dawn of the twentieth century (Wooding and Levenstein 1999; Noble 1986). Likewise, several environmental groups have placed health concerns at the forefront of their agenda, emphasizing the fundamental connection between public health and environmental pollution (Brown and Mikkelsen 1997; Hofrichter 2000). Though the mainstream elements of the two movements give greater priority to other core issues—labor and wages, environmentalism and ecology—there is increasing attention within both to the harmful health effects of unsafe working conditions and a contaminated environment.

Environmentalism, in particular, is experiencing a shift away from the elitist conservation orientation that dominated much of the movement's earlier years and toward grassroots activism that emphasizes public health and social justice concerns (Gottlieb 2002; Hofrichter 2000; D. Taylor 2000). This shift is grounded in a working-class environmentalism that

sees as inextricable the connection between the health of the urban environment and the health of its residents (Schwab 1993). This fundamental link between work, health, and the environment is also articulated as a central element of the growing environmental justice movement, which challenges existing social structures that reinforce social inequalities and environmental hazards (Bullard 1990, 1993; Capek 1993; Pellow 2000; D. Taylor 2000). The increasingly visible and politically influential working-class and minority environmentalism is creating new opportunities for building alliances with organizations in the labor movement.

By drawing on the shared concerns about health, environmental activists interested in promoting blue-green coalitions are able to create solidarity between unions and worker organizations interested in occupational health and environmental health. This type of joining together represents a fundamental realignment of what it means to identify as a "worker" or "environmentalist." Addressing environmental health threats outside the workplace can potentially result in the concentration of hazards in the workplace by encouraging firms to insulate facilities, trapping pollution inside to improve their environmental performance. Reducing workplace chemical hazards can similarly result in dumping pollution outside the plant into the environment. Health-oriented blue-green coalitions are about identifying alternative strategies for eliminating hazards before workers or community members become endangered.

In this book I examine the role of health issues in the formation and political trajectory of blue-green coalitions. By examining how health issues are framed by coalition leaders to attract support from both movements, it becomes clear that enduring and successful labor-environmental coalitions are facilitated by the linkage between occupational and environmental health. Strategically, utilizing a health framework for legitimizing the need for blue-green cooperation enables significant and lasting relationships to be formed between labor and environmental activists. Drawing on these relationships in the health framework creates a common ground that is the basis for the social construction of a coalition collective action frame. This frame allows coalition participants to develop a working relationship based on shared interests in health and to confront the "jobs versus the environment" polarity from a position of solidarity, not divisiveness. In doing so, blue-green coalitions that primarily address health concerns are able to endure ideological disputes and external threats from conservative political interests that strive to keep the labor and environmental movements from realizing their shared potential.

One way to envision the connections linking the workplace, communities, and the larger environment is to think about a set of concentric

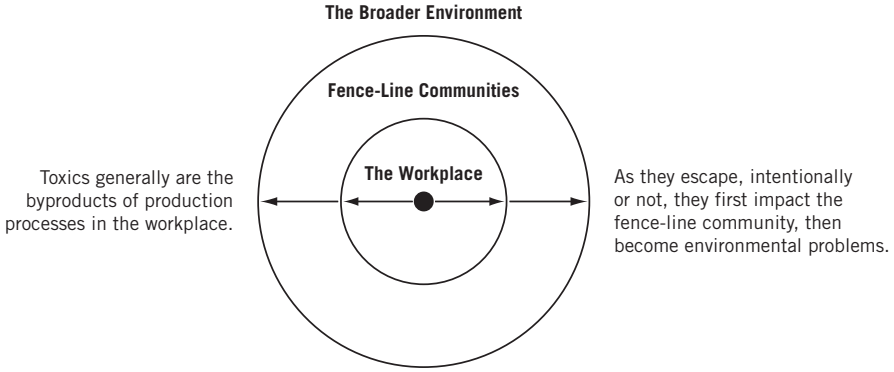

Figure 1. Toxic circles.

circles emanating outward from a common source—the workplace (see figure 1). These toxic circles illustrate how the toxic substances that threaten the health of workers are fundamentally larger environmental health hazards faced by countless communities and neighborhoods. The concept of toxic circles is derived from the title of Helen E. Sheehan and Richard P. Wedeen's (1993) edited work, *Toxic Circles: Environmental Hazards from the Workplace into the Community.* Hazardous substances that are utilized in workplace production processes may be transformed and escape or they may be otherwise disposed of in the vicinity of fence-line communities (those on the edge of industrial areas) and beyond. As these toxic substances make their way farther out from the point of production, they eventually become conceived of as environmental pollution and travel through various ecological mechanisms into every corner of the world.

In some extreme cases, these toxic circles can encompass virtually the entire globe. For example, polybrominated diphenyl ethers (PBDE), substances used popularly in the 1990s as flame retardants in everything from car seats, infants' sleepwear, computers, and couches, have even been recently found in the farthest reaches of these toxic circles—in the body tissues of polar bears. The environmental and public health risks associated with modern society are ubiquitous and do not prevent deleterious health effects from reaching the affluent, who live farther away from their sources, as well as the working class (Beck 1992).

The debate over who should be held responsible for the toxics generated within the workplace has been waged since the Industrial Revolution (Sheehan and Wedeen 1993). When toxics are in the workplace, their control falls under the influence of management, with only slight

oversight from a possible joint health-and-safety committee with a union local and fairly limited oversight from the state (Noble 1986). Once the toxics enter into fence-line communities and the broader environment, they are bureaucratically conceived of as an entirely different problem and are governed by distinct state entities and sets of laws and regulations. As toxic pollution spreads throughout communities and the environment, the question of whether firms responsible for its release or communities dealing with the toxic contamination should be responsible for addressing the threat becomes increasingly complex.

In the workplace, occupational injuries and disease are the resultant products of social and technological decisions linked to the management of production (Wooding and Levenstein 1999). So too are the environmental hazards products of these decisions, though the two are rarely considered as part of the same problem. The conditions of the work environment affect both the health of individuals who work at the point of production and of individuals who reside in proximity to the point of production. Analyses of work environments generally conclude that economic considerations greatly outweigh consideration of the health and safety of workers (Navarro and Berman 1983; Nelkin and Brown 1984; Noble 1986; Wooding and Levenstein 1999). As technological advancements steadily increase the pace of production and reduce the need for skilled labor, workers are increasingly disempowered and less able to advocate for health and safety—or, for that matter, environmental reforms (Schnaiberg 1980; Gould, Schnaiberg, and Weinberg 1996).

In the weakened state of the contemporary labor movement, both union and nonunion workforces are often subject to job blackmail from their employers. Job blackmail does not necessarily have to be related to environmental issues or regulation and is often employed to divert worker attention away from issues of occupational health and safety (Noble 1986). The tactic of environmental job blackmail gains force during periods of economic recession and high unemployment (Kazis and Grossman 1982). Given the choice between wages, benefits, and pensions or meeting environmental regulations, environmental job blackmail, or even the possibility of it, can be very real and can create tension between labor organizations and the environmental movement. For communities that are economically disempowered, the promise of jobs, even though toxically hazardous, can be attractive.

Once toxic hazards escape—or are intentionally released—into fence-line communities, they often become the rallying point for the formation

of a local environmental organization. The 1980s saw a boom in these local anti-toxics organizations that were intent on eliminating toxic waste from their communities—often labeled NIMBYism, that is, Not in my backyard! (Szasz 1994). The anti-toxics movement, which developed alongside the environmental movement and foreshadowed the environmental justice frame, generated enough political attention to generate several pieces of federal legislation dealing with the growing concern with toxics (the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, commonly known as the Superfund, and the Superfund Amendments and Reauthorization Act of 1986). As these environmental organizations, such as the National Toxics Campaign and the Citizens Clearing House for Hazardous Waste, experienced success they grew bolder and began to increase their challenges to local industrial facilities believed to be at the center of these toxic circles.

All too often, however, environmental organizations engaged in protest activities that targeted a specific industrial facility without first thinking about the workers inside the fences. When environmental social movement organizations rally outside a facility's gates, preventing workers from entering and earning their living, they unconsciously—or occasionally consciously—alienate potential allies in the workforce. Without first considering the hazards that workers face inside a facility, environmentalists often make the mistake of thinking that employees' attitudes toward toxics are the same as the more instrumental attitudes of management. When environmental organizations fail to identify workers as potential allies in a campaign to reduce toxics, they reinforce Foster's (1993) critique of them as a middle-class movement insensitive to working-class issues. The failed attempt at a hostile takeover of the Sierra Club's presidency on the part of anti-immigration activists in 1996 and the condemnation of loggers in the Pacific redwoods by Earth First! are clear examples of middle-class bias toward a narrow approach to environmentalism generating conflict within social movements.

Fortunately, many progressive environmental organizations are able to see past this limited definition of the workplace and seek to form relationships with workers, both union and nonunion, inside industry facilities that produce toxic hazards. Both the environmental and labor movements can benefit from collaboration—workers gain an ally in potential conflicts with management and environmentalists gain access to information from the innermost ring of the toxic circles—and they gain a certain political legitimacy that is derived from the solidarity across class divides.

Cross-Movement Coalitions

An examination of coalitions between labor and environmental organizations offers a fertile area of research for improving our understanding of contemporary social movements. Many of the assumptions behind our understanding of coalitions come from studies of intramovement cooperation and cannot explain the dynamics of labor-environmental coalitions.

Formal collaboration between labor and environmental organizations represents what Van Dyke (2003) calls a "cross-movement coalition." These cross-movement coalitions operate in often unexpected fashions and challenge many of the assumptions behind the literature of social movements. My analysis remedies these theoretical flaws through the elaboration of a new theoretical model that integrates the three main perspectives in the literature to explain why blue-green coalitions form and how they accomplish their political goals. Before proceeding to the development of my theoretical model, however, it is necessary to first provide a basic definition of a social movement coalition.

Social Movement Coalitions and Blue-Green Coalitions

At its core, a coalition of social movement organizations represents a collaborative endeavor that is supported by all participating parties (Gamson 1961). The sharing of organizational resources such as finances, organizational infrastructure, and members, however, does not sufficiently distinguish a social movement coalition from a simple cost-sharing arrangement. The degree to which resources are equally shared between coalition partners is not included in this definition, and, as Obach notes, "the level of coordination can vary dramatically from coalition to coalition" (2004a, 25). Although some level of coordination is implied for any coalition, the partnership of labor-environmental organizations that is representative of true cooperation requires more than the joint management of organization resources. A better definition, focusing on the importance of a shared identity, is needed to understand the dynamics that link labor and environmental actors together. Though coalition partners must pool organizational resources, the political viability of blue-green coalitions requires specific attention to finding a common ground that builds connections between the two constituencies (Staggenborg 1986; Van Dyke 2003).

In this book I examine the social conditions and strategies that draw labor and environmental interests together in long-lasting coalitions.

Other analyses of blue-green activities do not make this distinction, for example, Gordon (2004) and Obach (2004a), which examine only the initial formation of blue-green groups. I am more interested in the coalition life course, including the formation, maintenance, and dissolution of blue-green coalitions. Attention to the enduring nature of a coalition is a growing concern in the literature (Gould, Lewis, and Roberts 2005; Van Dyke 2003).

I use the term "coalition" to define the linkage of labor, community, and environmental groups in a formal and distinct organization that draws on a joint pool of resources, utilizes a collective identity unique to the coalition, and lasts beyond an initial campaign or goal. While this definition limits the field of potential case studies, my definition offers the greatest potential for an in-depth analysis of the formation and political viability of sustainable coalitions involving labor and environmental organizations.

New Theoretical Directions: Cross-Movement Coalitions

Forming coalitions is a common strategy for groups desiring to accomplish political goals. Movement groups that work in coalitions are typically more likely to achieve success than organizations that work in isolation (Gamson 1990; Van Dyke 2003). Coalitions offer organizations a strategic opportunity to coordinate resources and tactics to achieve a common goal (Koopmans 1993; Lipsky 1970; Tilly 1978). Coalitions that unite organizations and pool resources are able to stage events with more participants, finance larger campaigns, and sustain actions for a longer period of time—increasing the likelihood of success (Gamson 1990; Staggenborg 1986; Van Dyke 2003). Although resource pooling should be an important concern for organizers of blue-green coalitions, the visibility of labor and environmental activists at cooperative events is symbolically important.

Bringing together labor and environmental organizations, however, requires the bridging of key ideological differences. Past studies have examined the failure of progressive social movement organizations to form enduring coalitions and generally have concluded that the lack of a common collective identity frequently prevents collaboration (Aronowitz 1993). Despite numerous calls for a broad coalition of organizations with progressive interests, such a sweeping collaborative movement has yet to emerge.

Social movement theorist Nella Van Dyke (2003) argues that our understanding of how such a broad-based coalition might form is limited by a focus on single-movement coalitions. For example, researchers have

examined the formation of coalitions within numerous social movements, such as the environmental movement (Brulle 2000; Gottlieb 1993; Lichterman 1995; Shaffer 2000), the labor movement (Patmore 1997; Reynolds 1999; Williams 1999), and the civil rights movement (McAdam 1982; Morris 1984). Only a few have dared to explore coalitions between and among movements (Hathaway and Meyer 1993; Staggenborg 1986; Van Dyke 2003) or, as Van Dyke terms them, "cross-movement coalitions."

There is increasing recognition of a tendency of organizations from various movements to interact and cross traditional boundaries that distinguish one movement from another (Meyer and Whittier 1994; V. Taylor 2000; Van Dyke 2003). Calls for further attention to what McAdam, McCarthy, and Zald (1996) call a "meso-level" of social interaction have only been partially answered, even though researchers recognize coalition formation as a commonly utilized strategy (Van Dyke 2003). Groups within one particular movement often replicate the strategies of organizations from different movements to learn from past victories and failed campaigns. This type of interaction is characterized by Meyer and Whittier (1994) as "social movement spillover." However, implied in this conceptualization of movement interaction is a somewhat linear evolution from one movement to the next. Though the significance of this type of movement influence, or what Obach (2004a) calls "organizational learning," is not to be discounted, my emphasis in this book is on the challenge of managing organizational interaction in cross-movement coalitions that are derived from inherent differences in socioeconomic status, ideologies, and strategies between labor and environmental organizations.

Many of the assumptions guiding our theoretical understanding of the nature of social movement coalitions fall short in explaining why cross-movement coalitions such as blue-green alliances develop. For example, the existing literature on coalitions suggests that because organizations require certain resources in order to mobilize, they are less likely to engage in coalition work during periods of resource scarcity (McAdam 1982; McCarthy and Zald 1977). For cross-movement coalitions, scarcity may actually drive groups to seek nontraditional allies and into collaborative relationships (Clawson 2003; Van Dyke 2003). Resource scarcity in the context of single-movement coalitions fuels competition between similar organizations (Staggenborg 1986), whereas a surplus of resources encourages cooperation (Staggenborg 1986; Williams 1999; Zald and McCarthy 1987). However, in the context of cross-movement interaction, the resource pools drawn from are often different enough to avoid competition between organizations. For example, a decline in charitable grants for

environmental work would have little effect on the ability of labor unions to continue drawing on member dues. Dan Clawson in *The Next Upsurge* (2003) argues that the labor movement is particularly driven to form coalitions with other progressive movements in order to gain new members. Thus the blue-green phenomenon necessitates revisiting the assumption that resource scarcity limits coalition formation.

A second assumption in the social movement literature that is questionable when applied to cross-movement coalitions is that a common political enemy facilitates the formation of coalitions of social movement groups. This assumption is based on research demonstrating the importance of shifting political opportunities for the growth of protest groups (McAdam 1982; McAdam, McCarthy, and Zald 1996; Tarrow 1996). This body of research examines both political opportunities and threats. This literature suggests that within-movement coalitions are likely to form in response to direct political threats (Gerhards and Rucht 1992; McCammon and Campbell 2002). For example, when a particular political party is in power, groups often come together to fight that party as a common enemy. But in the context of cross-movement coalitions, this effect is much less important. In Obach's (2002) analysis of state-level blue-green coalitions, organizations were actually much less likely to cooperate in response to a common political enemy—in this case Republican-controlled state governments. Obach hypothesizes that rather than working together during times of limited political opportunity, labor and environmental organizations compete for whatever limited influence is available. It is during periods of *favorable* political opportunities that labor and environmental organizations are able to expand beyond a narrow definition of interests and work in coalitions.

The final assumption challenged by analysis of cross-movement coalitions falls within the framing literature in social movement theory. Though this analysis is of increasing importance (Benford and Snow 2000), there has been little attention to constructing a collective action frame in the context of social movement coalitions. In one of the few studies, Croteau and Hicks (2003) propose a model of a "consonant frame pyramid" that stresses the interaction of collective action frames across individual, organizational, and coalitional levels. Certainly the metaphor of the frame pyramid is a useful starting point for analyzing the role of strategic framing in forming blue-green coalitions, but it lacks theoretical depth. I propose a new model for the study of cross-movement coalitions that emphasizes the interaction of these three traditions within the social movement literature.

Understanding Blue-Green

Calls for the integration of the three perspectives in social movement theory are common, but few true examples exist. Individually, each of these traditions in social movement theory fails to sufficiently explain why cross-movement coalitions form and how they accomplish their goals. An integrated model stresses the interaction between political opportunities and framing and makes it possible to think about the interaction between structural shifts in the political environment and the interpretative work of social movement actors in constructing meaning. Though I place much emphasis on the work of framing, and in particular the role of health, my model recognizes that the strategic use of framing only succeeds at key times and locations within the political environment.

A certain amount of surplus resources are always necessary for coalitions to form. While my analysis calls into question the direction of the effect of resource scarcity, the presence of some organizational resources sufficient to enable the basic operations of a blue-green coalition is required. I argue that the formation of a blue-green coalition also requires some shift in the political opportunity structure—a major event or an issue that serves as the basic motivation for labor and environmental organizations to consider working in collaboration. These shifts in the political climate inspire coalition formation as organizations from various social movements realize that a cross-movement coalition allows them to accomplish things that they may not be able to do on their own. But these shifts require skillful manipulation on the part of coalition leaders through the technique of strategic framing.

Shifts in political opportunity structures, then, can be seen as necessary—but not sufficient—for the formation of blue-green coalitions. As new political opportunities become available for potential mobilization, coalition leaders must actively construct a coalition collective action frame that gives purpose and direction to the blue-green coalition. Otherwise, attempts to form enduring coalitions will fail when the political opportunity shifts. The case of the Turtles and Teamsters alliance is exemplary of this process. Labor and environmental organizations capitalized on a major political opportunity, in this instance the focusing of the media on the widely contested issues of globalization and free trade. Coordinated efforts by progressive leaders in the environmental movement to identify union activists working on issues related to environmental issues resulted in a short-lived coalition between the Sierra Club and the Teamsters union. But within a few years the political opportunity that brought

the organizations together shifted while the Bush administration's proposed oil drilling in the Arctic National Wildlife Refuge was endorsed by the Teamsters (Gould, Lewis, and Roberts 2005).

Enduring coalitions between labor and environmental organizations require more that just favorable political conditions and resources. Many attempts to bring the two movements together that were well funded and enjoyed favorable political climates fell apart. The "Turtles and Teamsters" alliance quickly collapsed, as did several attempts to bring together the two movements to address global climate change. It is not enough to bring political leaders together or gather endorsements from both movements. What is needed to make blue-green coalitions last is a joint identity—a common ground that unites the two movements and does away with traditional labels of "worker" and "environmentalist." The successful blue-green coalitions discussed in this book are important examples of identity consolidation, where the old labels are forgotten and replaced by "citizen," "community member," and "human being at risk from toxic substances." A collective identity facilitates a common language through which norms and values become aligned and common ground identified.

As a blue-green coalition progresses past its initial campaign, attention must be paid by coalition leaders to the internal maintenance of the coalition. New political opportunities may arise to drive the coalition in a new direction. This is the strategic role that framing plays in the coalition, as the articulation of a common problem can capture additional political opportunities and open up new spaces in which the coalition might operate. As with coalition formation, the presence of these shifts in political opportunity is a necessary condition, but it requires careful attention to the incorporation of the new issue into the existing coalition's collective action frame.

The Three Case Studies

Three examples of blue-green coalitions that focus on issues related to toxics and health make up the core of this book. Through comparing their origins and their political victories and failures, the complex dynamics of bringing diverse groups from the two movements together are revealed and the potential of such collaboration for eliminating toxic health hazards is explored. The three coalitions are the New Jersey Work Environment Council (WEC), the Alliance for a Healthy Tomorrow (AHT), and the Silicon Valley Toxics Coalition (SVTC). Though each operates in a distinct

political and cultural setting, many of the same dynamics of identity formation and the importance of health concerns apply to all; each one is a part of the growing phenomenon of labor-environmental coalitions fighting against toxics.

The Alliance for a Healthy Tomorrow formed in 2001 as a coalition of scientists, community activists, and public health professionals intent on implementing an alternative regulatory framework for managing toxics substances in Massachusetts. Realizing that a sweeping regulatory reform proposal to protect public health and the environment would likely generate opposition from the chemical industry and unions affiliated with chemical-intense industries, the early leaders of the AHT decided to build bridges to the state's labor movements to avoid the classic "jobs versus the environment" conflict. In the five years that the AHT has been working to develop a blue-green coalition, it has been moderately successful in attracting progressive elements of the labor movement. Coalition leaders have accomplished this task by modifying the precautionary principle, an alternative approach to making environmental and public health decisions based on taking preventive action even in the face of uncertainty, so that the logic of taking precautionary action to protect human health and the environment becomes more attractive to labor's interest in job creation.

The New Jersey Work Environment Council is a coalition of labor, community, and environmental activists that came together to implement the nation's first right-to-know legislation. In doing so, New Jersey became the first state where community members and workers could gain access to information regarding the storage and use of toxic substances. Building on this successful campaign, the WEC became involved in both workplace and environmental politics in the state of New Jersey. It has become the nexus for environmental-labor relations in the region. The Work Environment Council has been successful largely due to its leaders' emphasis on member education. As the coalition develops new campaigns and strikes out in new directions, it has been careful to maintain internal cohesion within the coalition so as to not alienate its membership. This strategy has proven very effective for the coalition, which continues to advance a progressive agenda for occupational and environmental reform.

The Silicon Valley Toxics Coalition formed in 1982 as a community anti-toxics organization addressing the health concerns associated with pollution from the high-tech industry that dominates California's Santa Clara County. The SVTC has since built partnerships with workers in a largely nonunion workforce, first responders, and a handful of unions that are also affected by the health hazards associated with the high-tech

industry. More than the other organizations, the SVTC works diligently to incorporate organizations from various ethnic and class backgrounds and to bring social justice issues into its framework. The SVTC has been the leading environmental organization in the United States to reveal and challenge the environmental and public health harms of the electronics industry. As the STVC has broadened the scope of its mission, the involvement of local union and community-worker organizations has declined, despite the increasing number of organizations the SVTC is working with worldwide. Due to this transformation of the SVTC's collective action frame and the a scarcity of organized labor in the electronics industry, the common ground between unions and environmentalists is dissolving.

Local versus National Coalitions

Coalitions between labor and environmental organizations form at multiple levels within the strata of social movement organizations. Historically there have been several examples of blue-green coalitions existing simultaneously at state and local levels within the United States (Gordon 2004). However, the extent to which such cross-movement coalitions persist past an initial political success or failure varies significantly depending on which strata it served. For example, at the national level the prominent coalitions such as the Turtles and Teamsters alliance, the Blue/Green Working Group (a Washington, D.C., coalition of labor and environmental leaders focused on climate change), and the Environmentalists for Full Employment (EFFE) ultimately failed to maintain their cross-movement relationships when there was a shift in political opportunity structures. These broad national-level efforts to bring the labor and environmental movements closer together relied on top-level officials or representatives of the movements in which the effort to maintain their relationships competed with other priorities. National-level coalitions are most effective for political campaigns but tend to dissolve after the election.

In the case of EFFE, cofounder Richard Grossman attributes the demise of the organization to their top-down approach, saying that "leadership-dominated coalitions for progressive causes are doomed. There must instead be significant impetus for and involvement of constituency group members . . . what is known as the democratic process" (Gordon 2004, 350). Though EFFE initially sought to develop environmentally sound employment opportunities, the top-down approach to working with only the bureaucratic leadership of the unions and environmental

organizations failed to create a sufficient constituency to sustain the work of the coalition (Kazis and Grossman 1982). The demise of EFFE suggests that enduring coalitions require participation of the rank-and-file membership from both movements. In order to find coalitions of this enduring nature, we must look at social movement organizations at the local, regional, and state level.

Coalitions constructed at the state or local levels allow for personal relationships to develop. For key class and ideological divisions to be crossed, and for stereotypes to be broken down, coalition participants must be able to interact with one another. As examples from each of the case studies will demonstrate, the realization that "workers" and "environmentalists" are artificial categories that do not always accurately represent social reality creates an opportunity for engaging in a dialogue about common problems and solutions. This process of creating a dialogue between labor and environmental interests is facilitated by bridge brokers, who by their unique locations at nexuses between the two movements are able to communicate across movement divides (Obach 2004a; Rose 2000). Additionally, in order for bridge brokers to function properly, they need to be able to come into contact with the core constituency of the coalition partners and engage them in an active discourse on the need for labor and environment to merge.

Roadmap

The first chapter begins with a brief examination of the history of relationships between the labor and environmental movements. This history is limited to the United States and emphasizes coalitions that form around health issues. Whereas most accounts of labor-environmental alliances begin at the birth of the contemporary environmental movement in the 1960s, I follow Gottlieb's (1993) argument that the collaboration between the two movements actually began much earlier in the urban environmental reform agenda of the Progressive Era. By situating the beginning of the relationship between labor and environmental organizations in this time period, we are able to see how the fundamental connections between hazards in the workplace and environmental and community health hazards was obscured by a shift to narrow interpretations of each movement's core identity that came about in the post–World War II period. But as social activism heightened in the 1960s, progressive activists within both movements were able to see past these narrow definitions and

form coalitions to work toward workplace and environmental reforms. The review of these examples of both successful and unsuccessful blue-green coalitions sets the stage for the analysis of my three case studies.

Chapters 2 through 4 examine the specific cases relating to the formation and trajectory of the three blue-green coalitions. Data for these case studies were gathered between 2003 and 2007. The accounts presented in this book are based on interviews, observations, and documents obtained from individuals and organizations involved with the coalitions, as well as media coverage, official reports, and studies from various other groups. Details on the collection of interviews, coding protocols, and ethnographic methods are discussed in the appendix.

In chapter 2 I build on the framing perspective in social movement theory by utilizing the concept of frame bridging. As the member labor organizations of the Alliance for a Healthy Tomorrow maintained their own unique identity independent of the Alliance, organizers of the coalition needed to alter the components of the Alliance's identity to attract more labor members. This process occurred through frame bridging, where a connection between the structurally independent, though tangentially related, frames of environmental health and occupational health was forged. I review the history of the precautionary principle and examine how it is being used to attract labor interest to environmental and public health activism. The final part of chapter 2 builds on the existing literature on the importance of bridge brokers in forming blue-green coalitions, for example, Rose (2000) and Obach (2004a), by arguing that bridge-brokering organizations, such as the Massachusetts Committee on Occupational Safety and Health, contributed to the success of the AHT in attracting labor to the coalition.

In chapter 3 I look at the New Jersey Work Environment Council, which began with a vision of linking the interests of workers in hazardous trades to communities and environmentalists fighting against toxic exposures. The New Jersey case is of particular interest as it has continued to function as a labor-environment coalition, and it has grown in size and political influence, whereas many blue-green groups eventually fade away after accomplishing initial goals or encounter an ultimately final divisive issue. Using the theoretical perspective of framing theory, I examine the formation and growth of the New Jersey Work Environment Council in the context of identities and political opportunities.

In chapter 4 I examine the Silicon Valley Toxics Coalition, which operates in a much different political and economic environment than the other two coalitions. Whereas the New Jersey and Massachusetts cases are

able to draw on the formal networks of organized labor, the high-tech workplaces of the Silicon Valley are not organized and the firms are aggressively antiunion. This difference in what the labor movement physically looks like makes the case of the Silicon Valley Toxics Coalition different from the other two and thus an important point of comparison. I trace the formation of the Silicon Valley Toxics Coalition and its evolution from being a small anti-toxics coalition to a global leader in revealing the hidden environmental and social costs of the electronics industry. The coalition's relationship to its labor members, drawn from the few unions that exist in the region as well as from labor-oriented community organizations, has significantly changed over time, and I explore how the broadening of the organization's scope of interest has overshadowed its previously strong ties to union and nonunion worker organizations.

In chapter 5 I look at the findings in each of the three case studies in a comparative framework and form conclusions. Each coalition required a key political opportunity shift to merge the two movements around a health issue. These shifts arose in the form of toxic spills or accidents or the threat of future contamination. The degree to which each coalition was successful in developing this opportunity into a political victory hinged on its ability to successfully frame the issue.

The conclusion presents an alternative model of labor-environmental coalition building that is being developed by the United Steelworkers (USW). The Steelworkers union has been historically very involved in environmental issues, beginning with attention to the health hazards associated with air pollution generated by steel mills in the 1950s. In a radically progressive political stance, the Steelworkers have collectively decided to hold their employers accountable for their environmental hazards. Believing that a clean and healthy industrial facility is more likely to remain in operation than its polluting and hazardous cousins, the Steelworkers union is among the leading unions promoting environmental causes. The brief example of the Steelworkers frames the work of the three coalitions examined in this book in a larger picture of the shifts we are witnessing in the relationship between the labor and environmental movements. Environmental health activism is increasingly becoming an important foundation for the future of both movements.

1

A Forgotten History of Collaboration

There is an important history of collaboration between the labor and environmental movements in the United States. This forgotten history of cooperation is often obscured by more prominent periods of conflict and failed attempts at alliance building. By ignoring these significant examples of alliances and coalitions between the two movements, we fail to recognize the potential for creating a more permanent arrangement between unions and environmental groups. If each time they do come together a new "age of cooperation" is heralded by media pundits and political observers, the lessons learned from the past and the hard work of the coalition brokers are lost.

Those reporting on the Turtles and Teamsters alliance that was formed in the streets of Seattle outside the 1999 WTO meetings projected that the alliance would lead a new movement against globalization (Gould, Lewis, and Roberts 2005; Obach 2004a). But this so-called alliance quickly dissolved when the Teamsters supported a plan to drill for oil in the Arctic National Wildlife Refuge—a proposal vociferously opposed by the environmental movement. The abandonment of the Teamsters' environmental allies was also widely covered by the press, which declared an end to the future of labor-environmental alliance building (Greenhouse 1999). By focusing solely on the short-lived Seattle alliance, we misunderstand the solidarity of labor and environmental interests at the WTO protest. The Steelworkers, not the Teamsters, were predominately responsible for

the organizing work necessary to bring the two movements together to protest in unison in the streets of Seattle. The Steelworkers did not plan this event just for the 1999 Seattle summit but rather built on an existing blue-green alliance that had been formed in the 1980s to address the question of job loss due to forest protection (Gordon 2004). Yet these events leading up to the Turtles and Teamsters alliance are largely ignored; what the public tends to remember is that labor and environmental movements are "natural enemies."

In order to understand the origins of the three coalitions analyzed in this book, it is important to examine the historic relationships between the two movements. There are important points of convergence that have come about largely through the work of grassroots activists to create a melding of interests between the movements. These social movement actors have been able to shift the discourse of occupational and environmental problems to address the root causes of human exposure to toxic substances. These fragmentary examples of collaboration between the two movements can generate a repertoire of possible coalitional forms for the future.

In this brief history of cooperation between the labor and environmental movements I highlight the important points of convergence with specific attention to the role health plays in bringing the two movements together. A common thread is the importance of working-class environmentalism, which represents a deeper understanding of environmental problems that situates the practice of protecting the environment in everyday work and life (Schwab 1994). Rather than defining the environment and nature as a place free of human influence, this working-class environmentalism sees a place for mankind in the natural world and emphasizes the need to find solutions that protect both nonhuman nature and human well being. When labor-environmental coalitions are built on this kind of understanding, it becomes much more difficult to ignore the fundamental connection between workplace safety and environmental health.

How do coalitions between labor and environmental organizations form? If the connection between the workplace and the environment is so fundamental, why are there so few examples to examine? The simple answer is that the work of forging a blue-green coalition is challenging. Successful coalition formation requires time, organizational resources, favorable political environments, and—most of all—a collective identity that facilitates collaboration and makes collaboration an ideal strategy for activists to choose. History has shown that coalition and cooperation have been ideal strategies at key times.

The Rise of Public Health and Urban Environmental Reform

The sudden acceleration of industrial production and the subsequent environmental degradation and transformation of the urban environment near the turn of the twentieth century created an interesting period for collaboration between the growing labor and urban reform movements. During this time, public health activists such as Alice Hamilton and Jane Addams worked to clean up dirty urban centers in the Northeast and Midwest. Hamilton's work in occupational health focused on the elimination, more so than the control, of toxic substances before they poisoned workers and escaped into the environment (Gottlieb 1993; Hamilton 1943). Hamilton's work through Hull House, together with celebrated reform activists Jane Addams and Florence Kelley, created what Gottlieb (1993) sees as a radical environmental critique of the workplace that linked workers' exploitation, the failure of regulatory oversight, and a lack of awareness of environmental health hazards together to define the escalating degradation of the urban environment. Meanwhile, conservationists were decades away from making the connection between worker health and environmental pollution. Its pioneers such as John Muir and Gifford Pinchot were busy contemplating the best strategy for managing the vast expanses of natural resources in the American West.

Within the larger context of the Progressive movement of the 1910s and 1920s, occupational health conditions became part of a broader social critique that focused on housing conditions, sanitation, and workplace exposures (Gottlieb 1993). Just as Engels (1845) described in *The Condition of the Working Class in England in 1844,* hazardous working conditions brought about largely as a result of the Industrial Revolution were polluting the working-class neighborhoods surrounding the growing factories in the industrial cities of the United States.

This important shift in the regime of production concentrated industrial manufacturing in urban centers, and this concentration led to the emergence of collective bargaining and labor unions. The labor movement was a major part of the Progressive movement's reform agenda that included a focus on ecological causes of illness (Rosner and Markowitz 1987). Championed by reformers like Hamilton and Kelley, activists in this era successively linked occupational hazards with public health and the community environment by framing these problems as socially created and therefore resolvable through worker empowerment and social reform (Estabrook 1996, 102). New occupational hazards created what Hamilton (1943) described as the "disease of the working classes." Mines,

in particular, were among the most hazardous and environmentally destructive industries and also the source of some of the most heated conflicts between labor and capital (Gottlieb 1993, 67). Though the conservation movement of that time was not involved in these issues, the social activists working in the reform movement established the link between environmental degradation and hazardous working conditions.

The success of the progressive reformers like Hamilton and Kelley culminated in important regulatory reforms, but it also happened through the creation of a common identity based on eliminating a common problem. The environmental hazards associated with industrial production were addressed through a common language, a single perspective that united labor, public health, and reform interests together in a campaign for social change. By creating a common language and approach to addressing the public health and environmental consequences of unchecked industrial growth, these efforts set an important precedent for the future of labor-environmental coalition building.

The most important example of this type of Progressive reform organization was the Workers Health Bureau (active 1921–28). Organized largely by women working outside the structure of labor unions, the Workers Health Bureau defined itself as a research adjunct to the labor unions to protect worker health and safety (Gottlieb 1993, 69). The Workers Health Bureau functioned as an educational and research institution for social activists to focus on workplace health-and-safety issues. However, as the labor movement grew in strength, its organizers became more professionalized and narrowed their operational range, selecting to focus primarily on winning contracts that protected workers' wages. Health and safety became a marginalized issue, despite the Workers Health Bureau's emphasis on securing occupational safety concessions as part of a labor union's bargaining agreement. Eventually, the political dominance of the American Federation of Labor (AFL) over the industrial unions led to most unions withdrawing their support for the Workers Health Bureau, ending its struggle to empower workers with the right to work in a safe and healthy environment (Gottlieb 1993).

The growing concern with public health at the height of the Progressive Era resulted in the creation of the U.S. Public Health Service in 1912. As Gottlieb argues, though the passage of this legislation was a major success for Progressive reformers, its enactment contributed to the professionalization of public health as a scientific discipline (1993, 57) based on the biomedical model of diseases with less concern for environmental factors. Professional organizations and associations came to dominate the management of urban environmental problems. These professional

associations were controlled by scientists and engineers, whose attention was directed toward developing technical fixes for the problems, and who inherently accepted that industrial pollution would create some level of harm. Thus the work of the Progressive reformers was expressed in a strategic form. A new regulatory bureaucracy was established and attention to industrial pollution grew. However, the discursive expression of the need for collaboration between labor and environmental interests was lost in the strategic victory because the health of workers on the job was no longer a primary concern.

As technical solutions to the growing urban environmental crisis began to solve the immediate health risks of communities—improved sanitation, water filtration and treatment, and more efficient solid waste disposal—the impacts of industrialization on the natural environment were conceptually separated from the public health risks to the community and to workers (Gottlieb 1993, 59). Also contributing to a widening divide between occupational and environmental hazards was the rise of the urban planning movement. With a growing critique of urban growth and pollution, activists argued for increased urban planning and design to ensure healthy and aesthetically pleasing urban environments. This movement resulted in an increase in urban parks and green spaces, but it did little in the area of critiquing the growing health costs of industrial production.

While the work of the public health reformers during the Progressive Era failed to create a merger between the labor and urban planning movements around issues related to urban health, the research of Alice Hamilton, Florence Kelley, and others laid the groundwork for understanding the connections between the workplace and the environment. Their success in framing the problem of industrial pollution as common to both workers and the community environment forged a new activist identity based on the connections between the workplace, community, and environment.

This facilitation of collective identity is a vital step in the formation of any social movement organization or coalition (Castells 1997; Jasper and Polletta 2001; Snow and McAdam 2000; Taylor and Whittier 1992). Jasper and Polletta (2001) define collective identity as "a perception of a shared status or relationship, which may be imagined rather than experienced directly, and is distinct from personal identities" (248). Activists build collective identity by linking personal values, ideologies, and emotions to a group identity—facilitating a perception of shared status and purpose.

Collective identity is fundamentally about this feeling of connectedness (Diani and Bison 2004). For cross-movement coalitions, the creation of connectedness can be challenging, especially if the members of

the coalition originate from movements with distinct identities such as "worker" and "environmentalist." Several scholars see an expansion and blending of such traditional identities as a necessary outcome if more traditional social movements, such labor, are to collaborate with newer identity-based movements, such as environmentalism (Carty 2006; Clawson 2003; Keck and Sikkink 1998; Smith and Johnston 2002). Overcoming the boundaries around these identities requires people in the movement to alter their outlook and revisit certain stereotypes regarding those in the other movement. Snow (2001), for example, sees interaction between social movement organizations as having the potential to develop a cooperative identity through "identity consolidation," in which coalition partners are required to "adopt an identity that is a blend of two prior but seemingly incompatible identities" (10).

Identity consolidation rarely occurs on its own. Alice Hamilton fought an uphill battle to link hazardous working conditions to the dirty streets and poisonous environments of the new urban city. Industry's interests lay in the prevention of such a broad collective identity. A workforce united with a broad social reform movement spelled disaster for unchecked industrial growth, promising regulatory reforms and powerful unions. Though Hamilton was able to win many important victories, the workplace hazards continued to evolve—often escalating in toxicity—and continued to escape into the broader environment. Hamilton and her peers left an important legacy by having taken up the challenge of building a labor-environment link based on health.

Organizing for Health and Safety

By the 1930s, the opportunities for collaboration between the labor and the urban reform movements largely had passed (Gordon 2004). The radical critique of industrial growth that linked the deterioration of the urban environment with workplace hazards faded during the Great Depression as attention turned toward effective means of redistributing what wealth remained and did not reemerge in the discourse of the immediate post–World War II period (Estabrook 1996; Gottlieb 1993). However, the period between the passage of the 1935 Wagner Act and the passage of the 1947 Taft-Hartley Act was a time of great growth for the labor movement. Both its membership and political influence grew at an unprecedented rate. What did not grow however, were labor's efforts to build ties to the waning conservation movement.

While most social movement scholars agree that a surplus of resources gives rise to cooperative behavior between organizations (Minkoff 1997; Staggenborg 1986; Van Dyke 2003), this did not especially hold true during the heyday of labor organizing. It was not until resources became more scarce and the ability to raise funds and recruit weakened that labor began to reach out to other movements. With finite limits on recruitment and fundraising, activists are often forced to focus primarily on the survival of their organizations and can be wary about overextending themselves by working in coalitions (Obach 2004a; Zald and McCarthy 1987). In the context of labor-environmental coalitions, which are cross-movement rather than within movement, resources seem to have an unexpected effect. Scarcity, in the second half of the twentieth century—along with limited political opportunities—would bring the two movements together.

The environmental discourse of the 1940s and 1950s was generally limited to discussions of wildlife protection and had not yet developed a broader critique of the dangers of the petrochemical industry, which was just beginning to develop. These concerns about the potential hazards associated with chemical exposures would surface by the late 1960s and become the common ground for future blue-green coalitions to coalesce around.

Though the research into occupational health hazards collected by Hamilton and her colleagues helped improve the working conditions in industrial cities, by the 1920s and 1930s the incidence of industrially caused disease was still rising (Rosner and Markowitz 1987). Major disasters such as the silicosis of tunnel workers at Gauley Bridge, West Virginia, refocused the public's attention on the hazards associated with unregulated industrial growth (Kazis and Grossman 1982). Occupational diseases such as silicosis and asbestosis began to reach epidemic though unacknowledged proportions, despite industry's tight control of workers' health information and sponsorship of medical research (Gottlieb 1993).

The opportunity to build alliances around the emergence of these new industrial diseases was hindered by a lack of information concerning their prevalence. Much of Hamilton and Kelley's work had focused on collecting data to prove the existence of workplace disease. But as Rosner and Markowitz (2002) reveal, newer industries, such as the producers of lead paint and petrochemical refiners, worked diligently to prevent any information linking hazardous working conditions and environmental contaminants to occupational, environmental, or public health. Unions such as the United Mine Workers and others led a new movement to recognize and treat the spread of occupational disease (Gordon 2004). Aided

by health professions and doctors eager to challenge the dominance of corporate medicine, the UMW and like-minded unions seized on industry's malfeasance and sponsored multiple strikes and class-action lawsuits against industry. However, the bureaucratic leadership of the UMW did not make occupational health and safety a priority in relation to other issues seen as being of greater importance, such as wages and seniority, even after the rank and file engaged in a number of wildcat strikes against horrific working conditions in the mines. Gottlieb argues that this series of events—the lawsuits, strikes, and medical discoveries—helped "link the issues of occupational exposures, environmental hazards, and the public's right-to-know and launched a new workplace-related movement" among health and safety professionals (Gottlieb 1993, 277).

The lock on corporate dominance of information regarding the link between hazardous working conditions and the rise of occupational disease did not loosen until the 1960s, when the activism of the United Mine Workers, in particular, led the push for passage of the Occupational Safety and Health Act (OSHAct) in 1970. As Gordon (2004, 81) notes, the mine workers were not alone in their work to improve health and safety, as the Oil, Chemical, and Atomic Workers Union (OCAW) became heavily involved in the growing occupational health movement. Whereas the mine workers emphasized working conditions in the mines and medical treatment and compensation for illnesses related to mining, the OCAW's critique of the harmful consequences of chemical production and nuclear waste made collaboration with the environmental movement—particularly the growing anti-toxics groups—significantly more likely. When biologist Barry Commoner began publishing his classic research demonstrating the presence of strontium 90 in children's bodies from exposure following nuclear testing, president Tony Mazzocchi of the United Gas, Coke, and Chemical Workers Union Local 149 (which later became part of the OCAW) urged his members to bring in baby teeth from their children and grandchildren and sent them off to Commoner (Leopold 2007). Though Commoner was ultimately unable to use the baby teeth, Mazzocchi's interest in the ramifications to health of occupational and environmental exposures to all things toxic—including nuclear fallout—brought the chemical workers' union closer to participating in blue-green coalitions.

The OCAW was one of the first unions to demand active worker involvement in health-and-safety decisions in the workplace (Page and O'Brien 1973). By the mid-1960s, the OCAW won concessions from companies in the form of joint health-and-safety committees for union and corporate representatives (Leopold 2007). These joint committees became

the model for other unions in their bargaining agreements. Prior to the passage of the 1970 Occupational Safety and Health Act, the joint committees were largely ineffective, as management would individually select committee members and continue practicing top-down decision making regardless of the union's concerns (Gordon 2004). Unlike the leadership of the UMW, the OCAW was much more responsive to its rank and file (Gottlieb 1993; Estabrook 1996). Its progressive legislative director in Washington, D.C., none other than Tony Mazzocchi, became a champion of having the rank and file actively involved in health and safety on the shop floor. In addition, Mazzocchi was acutely aware of the link between the chemicals being produced by union workers and the growing environmental concern with toxic pollution (Gottlieb 1993). Mazzocchi said later on during OCAW's 1973 strike against Shell Oil, "Environmental concern is spreading; the problem cannot be dealt with unless we start with the workplace. A degraded work environment ultimately affects the general environment" (Noble 1986).

This quote from Mazzocchi situates the theoretical concept of identity consolidation in reality. In recognizing the connection between the workplace and the environment, Mazzocchi was attempting to create a common ground between the two movements and facilitate environmental awareness among petrochemical workers.

Bringing two distinct identities together through consolidation requires more than just a feeling of connectedness. Because the notions of what it means to be a worker or environmentalist have remained separate for so long, organizers must also find more conceptual points of convergence for the way each movement frames, or defines, its purpose in order to facilitate coalition building. This process is not unlike Snow et al.'s (1986) concept of frame bridging. According to Benford and Snow (2000) frame bridging refers to "the linking of two or more ideologically congruent but structurally unconnected frames regarding a particular issue or problem" (624). Bridging most often occurs between an existing collective-action frame and an inactive set of grievances, but it can also occur between two or more social movements whose collective identities share the potential to overlap. Frame bridging, then, can be a mechanism by which a collaborative collective identity unique to a blue-green alliance is formed by movement leaders.

However, identifying as a "worker" for environmentalists and identifying as an "environmentalist" for workers is often not a salient process for either party. Bridging and consolidation require a common language, which is often missing for workers and environmentalists (Obach 2004a),

and it often requires charismatic leaders like Mazzocchi to bridge the gap. The challenge of bringing identities together is eased by bridge brokers. These key social movement actors bring diverse organizations together by virtue of their ability to cross key movement divides (Rose 2000). Past research into the formation of labor-community coalitions has identified the importance of these bridge brokers (Brecher and Costello 1990; Obach 2004a; Rose 2000). An individual acts as a bridge broker when he or she can effectively communicate with multiple parties that are differentiated by some structural or identity-based divide that would ordinarily reduce the likelihood of communication and, therefore, collaboration. Tony Mazzocchi was *the* bridge broker for blue-green coalition building in the United States.

While chemical workers and medical professionals were leading the charge against unsafe working conditions in industrial settings, farm workers in the fields of California were developing a similar critique of industrialized agriculture. While the UMW and the OCAW represented major international unions, the United Farm Workers of America was both a fledgling social movement and a union trying to organize in some of the most challenging occupational environments (Pulido 1996). California agribusiness was, and remains, one of the most antiunion employers, with the economic resources and political power to continually oppose the UFW's efforts to organize migrant farmworkers (Gordon 2004; Pulido 1996). As part of their organizing strategy, César Chávez and his fellow organizers emphasized the hazardous working conditions in the farm fields, especially the toxic hazards posed by the application of pesticides (Gottlieb 1993). This strategy was one of the few available to the UFW at the time, as it went beyond employment struggles in the farm fields and raised the societal-level issue of chemical use in agriculture.

Although Rachel Carson's (1962) *Silent Spring* warned of the danger of pesticides to the health of farmworkers, the mainstream environmental movement seized on her finding that pesticides such as DDT were killing large populations of birds and fish. The peril to farmworkers was largely ignored by environmentalists until a legal logjam was reached. Large environmental groups such as the Environmental Defense Fund (EDF) and the Sierra Club faced difficulty in court because of their lack of standing, in that their legal arguments were based on the risk to wildlife, not people (Gottlieb 1993). By the mid-1960s, the UFW was struggling to mobilize California farmworkers in the face of enormous resistance from agribusiness (Pulido 1996). Among the many workplace demands, which included higher wages and union representation, health and safety in relation to

the use of pesticides was of central concern. Though they faced similar challenges as the mineworkers and chemical workers in gaining access to medical information documenting the connection between occupational disease and pesticides, by 1986 the UFW had made pesticide spraying a central rallying point (Gottlieb 1993). However, the issue of pesticides remained linked to a broader social critique of corporate control over the workplace and the UFW's identification as a social movement interested in social change, not just a collective bargaining unit.

The UFW was aware of the growing environmental concern about pesticides and about DDT in particular (Gottlieb 1993; Pulido 1996). After a public health scare in 1965 generated by a government announcement that the pesticide used on cranberries was carcinogenic, UFW leaders began to formulate a plan to incorporate campaigns that included boycotts into their strategy (Gottlieb 1993). At the same time that the National Farm Workers Association and the Agricultural Workers Organizing Committee joined forces as the UFW during the first major grape boycott in 1966, they also filed a lawsuit against the manufacturers of DDT and other pesticides, claiming that under the 1958 Delaney Clause of the Food, Drugs, and Cosmetics Act all chemicals thought to be carcinogenic found in foods could be banned. The UFW, however, lacked the financial resources to maintain the momentum of the legal battle. Even with the aid of their legal ally, the California Rural Legal Assistance group, demonstrating a scientific link between the chemicals and health risks was too expensive for the limited resources of the UFW.

In one of the first labor-environmental alliances to emerge in the 1960s, the UFW accepted the legal assistance of the EDF in 1969, which had filed similar lawsuits aimed at banning DDT in the United States. What the UFW lacked in financial resources they made up for in sick bodies—individuals who had been poisoned working in the fields and who could claim legal standing against the manufacturers of DDT. It was this combination of the EDF and UFW that eventually led to federal legislation banning the pesticide in 1972(Gottlieb 1993). This blue-green alliance was based on a common issue, DDT, though each party articulated the problem with DDT in a different framework. The EDF was concerned with DDT's impact on wildlife populations and the UFW with its potential for causing cancer among exposed workers and their families. Despite the significance of this alliance, it was only a marriage of convenience and quickly dissipated after the successful lawsuit. Since the alliance was defined solely around the one lawsuit, and even more specifically around banning DDT, once that goal was accomplished there was no collective identity holding

the two movements together. Again we see the frame bridging of a common problem, in this case DDT. But, although the UFW-EDF alliance set an important precedent, it had only a short-term strategic goal and not as its purpose the long-term transformation of the debate about pesticide use in general.

While the UFW continued to fight for workers' empowerment to improve working conditions, the EDF and other environmental groups were not interested in committing their resources to this struggle. And as Gottlieb (1993) notes, the banning of DDT failed to address the issue of occupational exposures and replacements for DDT, which, while less harmful to wildlife, were actually more toxic to humans. The UFW-EDF partnership was largely defeated by a shifting political climate. In working together and developing a common identity based on the notion that the risks of DDT were much greater than just the health of workers and birds and that entire ecosystems and human populations were in jeopardy, the partnership made significant strides in changing the rules and regulations regarding pesticides. But after victory in banning DDT, the political climate shifted toward a more laissez-faire attitude towards chemical usage in agriculture, and the necessity of the labor-environmental coalition faded. Although having resources for coalition building, identity, and framing are all necessary elements in forging a blue-green alliance, shifting political opportunities set a broader context that can limit the potential for coalitions.

The basic argument offered by political opportunity theory is that social movement actors do not choose their goals, strategies, and tactics in a social vacuum. Rather, social movement actors are constrained by structural factors—particularly, political structures. While there are multiple definitions of a "political opportunity," Tarrow's (1998) captures the basic concept: "consistent—but not necessarily formal or permanent—dimensions of the political struggle that encourage people to engage in contentious politics" (19). Most social movement scholars focus on conceptualizing novel measures of these structures, including pre-existing social movement organizations (Meyer and Whittier 1994), changes in public policy (Costain 1992; Meyer 1993), the openness and ideological positions of political parties (Kriesi et al. 1995; McAdam, McCarthy, and Zald 1996; Rucht 1996), state capacity (Amenta, Dunleavy, and Berstein 1994), and actor's perceptions of political opportunities (Gamson and Meyer 1996).

Political opportunity structures operate in a complex manner for labor-environmental coalitions. According to Van Dyke (2003, 229), "most current formulations of political opportunity theory argue that groups will

not mobilize unless they believe that they have some access to the political system." For coalitions, however, past research suggests that coalition formation is more often triggered by political threats than by opportunities (McCammon and Campbell 2002). Research into the formation of blue-green coalitions suggests that political opportunities, particularly as measured by which political party controls the national and state governments, plays a significant factor in the development of labor-environmental alliances (Obach 2002). Obach (2002) argues that blue-green alliances are less likely to form in Republican-controlled states than in Democrat-controlled states. Whereas one might hypothesize that labor and environmental activists would share the common goal of eliminating a political enemy such as the Republican party, Obach's survey of movement leaders found that the "unite against a common enemy" approach does not apply. Instead, movement leaders believed that in conservative states, each movement was forced to compete for limited political opportunities. This finding held true even when controlling for the relative strength of the movement within a particular state, suggesting that comparatively weaker groups may want to avoid working with other organizations to preserve what political influence they might possess rather than lose their independence by working in a broad coalition (Obach 2004a, 44). The important point here is that even with a collective identity, a common purpose, and sufficient resources, context matters. With the success of banning DDT, the UFW-EDF alliance could have continued to work toward eliminating other toxics used in industrial agriculture. But the political and regulatory environment shifted—diminishing the perceived necessity of the coalition and ultimately leading to its collapse.

Though the alliance between farmworkers and environmentalists failed to endure, the growing public attention to the dangers of pesticides led to a number of successful boycott campaigns for the UFW. The growing concern with occupational hazards in the farm fields however was not integrated into the larger social activism surrounding the passage of the Occupational Safety and Health Act of 1970, which itself was the product of the culmination of industry's failure to privately address the rise of occupational diseases. Farmworkers' grievances were covered under a unique system. Agriculture in general has been treated as a special category of employment due to its social necessity, traditionally placing farmworkers in a subaltern category (Pulido 1996). Thus there were limited political opportunities to connect to the growing concerns with asbestoses or silicosis of the 1960s. Gottlieb (1993) argues that most of the major unions at the time of the passage of the Occupational Safety and Health Act paid little

attention to health and safety. Unions operating outside the mainstream movement, like the UFW and the OCAW, were exceptions rather than the norm for the labor movement (Obach 2004a).

Although most major unions paid relatively little attention to occupational health and safety in terms of bargaining agreements in the 1960s and 1970s, radical labor activists began developing an alternative model in the early 1970s (Gottlieb 1993). Young scientists and professionals in the field of industrial hygiene organized themselves in cities across the country in groups that formed a network called Committees on Occupational Safety and Health (COSH). The emergence of these COSH groups, particularly in cities where occupational health hazards were common, represented a new opportunity for the linkage between workplace and environmental health concerns (Obach 2004a).

The first COSH organization was the Chicago Area Committee on Occupational Safety and Health, created in 1972 following a conference of young medical professionals (Gottlieb 1993). The Chicago COSH organization received sponsorship from several local unions and served as a model for two other important COSH groups that emerged around the same time—the Massachusetts COSH and the Philadelphia Area Project on Occupational Safety and Health (PhilaPOSH). Another important COSH organization, the Santa Clara Center on Occupational Health, formed several years later to address the workplace hazards of the high-tech industry in booming San Jose, California, the so-called Silicon Valley. These COSH organizations pursued an agenda of worker empowerment through education and training in a style that mirrored the important work of the OCAW's Tony Mazzocchi. Working outside of the traditional labor union format, COSH organizations were able to maintain a new and different agenda based on teaching workers to manage their own working environments.

Since COSHes were not directly affiliated with the major labor unions, they were for a short time able to pursue this alternative agenda. In some cases, the AFL-CIO and other big unions pressured locals to withdrawal their support from the COSHes, much as the AFL did in response to the organizing of the Workers Health Bureau fifty years earlier. The mainstream labor movement thought that the COSHes were undermining their credibility on general workplace issues by emphasizing their weak positions on increasing regulation for occupational safety and health (Gottlieb 1993). Labeling the COSHes as outsiders to the movement, some labor leaders attempted to marginalize and dismiss the "outsider" health-and-safety activists. Despite these attacks, a number of COSHes established working

relationships at the regional and local level with union locals and were able to obtain funding from the federal government through the Occupational Safety and Health Administration's New Directions grant program during the Carter administration in the late 1970s. As a national movement organized around health and safety, the COSHes had only a moderate and uneven impact on the general labor movement. They are, however, responsible for making the major unions interested in working on health and safety projects. Through their dedication to worker empowerment and training, several of these COSH organizations developed significant relationships across movement divides at the local level. Despite working with some unions and union locals, COSHes operate somewhat outside mainstream labor and thus are ideal bridge-brokering organizations.

An organization—or individual—acts as a bridge broker when they can overcome perceived differences between organizations that prevent collaboration from occurring, most often through effective communication. The resource costs of both coalition formation and frame bridging can be eased by bridge brokers. These key social movement actors and groups bring diverse organizations together by virtue of their ability to cross key movement divides (Rose 2000).

An activist or organization looking to construct a labor-environmental coalition benefits from a bridge-brokering individual or organization because it eases the process of frame bridging. The linkage of the two or more ideologically congruent frames requires effective communication across movement boundaries, which can be accomplished over time, but the process is greatly aided by an individual or organization familiar to all. Often a particular individual who belongs to both a union and an environmental organization may serve as an initial bridge broker, creating opportunities for introductions and exchanges of ideas. More often, however, a particular organization that is well known to both movements facilitates successful recruitment of organizations and individuals into coalitions. These bridge-brokering organizations lend necessary legitimacy to a budding cross-movement coalition, adding to the motivational element of the coalition's collective-action frame.

As I highlight in each of the three case studies, the presence of a COSH organization in the formation of a blue-green coalition has been a major resource for each coalition to draw on. Since the COSH organizations operate independently of both the labor and environmental movements, they are better suited to fluidly cross movement boundaries. As a clearinghouse for technical information regarding workplace hazards,

environmental organizations, such as the National Toxics Campaign, an anti-toxics network developed in Massachusetts, have worked with COSHes in the past to identify connections between environmental pollutants and occupational hazards—making the important link between toxics in the workplace and toxics in local communities.

Despite the initial success of the COSH movement, many of the organizations failed to transition into a permanent relationship with the labor movement. When the funding made available for health-and-safety training through the New Directions program was cancelled during the Reagan administration, financial resources for the COSHes to draw on became scarce, and many of the groups folded due to lack of support. Although interest in improving health and safety remained high, without sponsorship from mainstream unions or large granting agencies like the National Institute for Occupational Health and Safety (NIOSH), most COSHes were unable to maintain their level of organizing.

Although the growth of interest in health and safety among labor organizers and a growing cooperation between the labor and environmental movements resulted in the passage of OSHAct in 1970, there was much more work to be done in improving hazardous working conditions linked to environmental problems (Gottlieb 1993). Many progressive activists believed that the passage of OSHAct and the National Environmental Policy Act (NEPA) would lead to more formal alliances between unions and environmental activists. Among them were the OCAW and its legislative director, Tony Mazzocchi. But after only the first year of OSHA's operation, the OCAW realized that relying on the overburdened agency was a mistake. OSHA's first action, in which it announced a lenient standard for asbestos exposure, justified by the logic that a zero exposure level would be economically unfeasible, revealed its inability to effectively carry out its political mandate. Unions like the OCAW with strong concerns about health and safety were forced to seek alternative solutions to OSHA enforcement of its limited standards (Gottlieb 1993).

In the early 1970s, the OCAW began to focus its attention on the health hazards of numerous substances common in its members' workplaces, including asbestos, beryllium, mercury, radioactive waste, and other industrial toxics. A central solution proposed by the OCAW—along with the fight to gain access to information on hazardous substances—to controlling these workplace hazards was the creation of health-and-safety committees run jointly by unions and companies. By 1972 a joint health-and-safety committee became a central demand in the union's bargaining (Gordon 2004). Unsurprisingly, the demand for health-and-safety

committees was met with staunch opposition from management, particularly in the petrochemical industry. As with much of the opposition to occupational or environmental health interventions in the workplace, industrial interests claimed that jointly run health-and-safety committees intruded on the privacy and trade secrets of business. Despite their opposition, the potential of an energy crisis in the early 1970s made the possibility of lengthy labor disputes a cost the majority of oil producers—such as the American Oil Company, Mobil, and Texaco—wished to avoid and eventually led them to concede to the OCAW's demands to participate in health-and-safety decisions (Gordon 2004).

While all but two of the fourteen major oil companies agreed to establish joint committees, two of the largest manufacturers, Shell Oil and Standard Oil, refused to sign the new bargaining agreements. Shell Oil, the British half of Royal Dutch/Shell—the world's second largest producer of oil at the time—had a long history of confrontation with the OCAW and previously had been unable to reach an agreement over health-and-safety concerns, resulting in a short but bitter strike. The 1973 dispute turned out to be a little different, and after the union and Shell failed to reach an agreement, five thousand Shell employees walked off the job (Gordon 1998).

The model for the Shell strike developed by the OCAW would influence the form of subsequent strikes for decades to come. Recognizing the limited impact of five thousand workers striking Shell Oil, the OCAW announced a national boycott of Shell products. According to historian Robert Gordon, "OCAW coordinators realized that portraying the strike as a dispute over workplace health and safety and down-playing the material aspects of the conflict was likely to strike a sympathetic chord with environmentalists and an increasingly environmental and health-conscious public" (2004, 173). Although the United Farm Workers failed to connect their demands for health and safety committees to a broader public concern with the health hazards of pesticides (Pulido 1996), the OCAW strike marked the first time conflict between a major international union and multinational corporation was fought over health, safety, and the environment. Fortunately for the union, the media emphasized the environmental concerns, portraying the struggle as an issue of the right to a healthy and safe working environment. The 1973 OCAW strike became a national event that was captured in the slogan, "Shell No!"

Environmental cooperation in the Shell No! strike significantly altered the outcome of the protest. Only six days into the strike, an alliance of eleven leading environmental organizations announced their support for

the union and their demand for plant-based joint health-and-safety committees at all Shell locations (Gordon 2004). Orchestrated by Mazzocchi, the environmental support for the strike became one of the leading headlines in the media. The media generally portrayed the blue-green alliance as a unique event, largely ignoring the past history of cooperation between the labor and environmental movements. Despite this disjuncture in media representation, the Shell No! strike marked a continuation of the joint identity Mazzocchi had formed earlier between chemical workers and environmentalists (Leopold 2007). Again framing the issue of workers' rights and compensation as a broader critique of workplace practices and related production hazards, Mazzocchi built on the idea that health is a value shared by both workers and environmentalists. Though differently conceptualized than traditional approaches to improving public health by cleaning up the workplace, Mazzocchi and his organizers continued to bridge the blue-green divide and drove home that collaboration was both possible and, more importantly, politically powerful.

Environmental support for a union campaign was understandably rare at the time. The economic and energy crises that had materialized by the mid-1970s forced organizations from both movements to reassess their commitment to providing support to collaborative campaigns. Though the mainstream organizations within each movement, such as the AFL-CIO and the Sierra Club, returned to their core ideologies and demographics, a number of progressive elements believed cooperation was essential to weather the economic storm (Gordon 2004). By 1975 the economic recession produced an unemployment rate of nearly 9 percent, almost twice what it had been only a few years before. Pressure to ignore issues of health and safety and environmental quality in order to keep aging industrial facilities operating threatened to widen the divide between labor and environmentalists (Gottlieb 1993).

To combat this growing danger that environmental quality and health and safety would be sacrificed to boost employment, pro-labor environmental activists founded the organization Environmentalists for Full Employment in 1975. EFFE was formed to work with organized labor to develop environmentally sustainable employment projects and to "prevent the current economic trauma from being used as an excuse for emasculating environmental protection programs" (Grossman 1985). EFFE set out to work with leaders in the environmental movement as well to promote the importance of investing in labor-intensive sources of renewable energy such as solar and wind power, which would both reduce environmental pollution and create new opportunities for employment.

The environmental agenda advocated by EFFE was joined by socially oriented labor unions such as the UAW, OCAW, and USWA and several key environmental organizations like the Sierra Club, Friends of the Earth, and Environmental Action. Passage of the Toxic Substances Control Act (1976), the Labor Law Reform Act (1977), and the Humphrey-Hawkins Full Employment Act (1978) was aided by the cooperation of these labor and environmental organizations. However, despite these important successes, there was still a distance between the two movements. EFFE cofounder Richard Grossman, a former Peace Corps volunteer, activist, and legal historian, admitted as such, pointing to the lack of involvement of union rank and file in the collaborative projects (Gordon 2004). By working directly with the directors of the big environmental organizations, EFFE was able to secure support for the passage of federal legislation, but it failed to communicate the importance of environmentally sustainable employment not only to the rank and file of the labor movement but to the general membership of most environmental groups (Obach 2004a). Emphasizing the national over the local, EFFE succeeded only in a limited, though significant, victory and was unable to sustain its activism past the initial successful campaign.

The passage of the major environmental and occupational pieces of legislation at the start of the 1970s gave health-and-safety activists an important victory that promised the growing movement future success. But as the new federal agencies were overwhelmed by the challenge of setting regulatory policy in the workplace and the environment, labor and environmental organizations interested in collaboration were forced to find alternative strategies for promoting their progressive agenda. The campaign against corporate control was initiated by the UFW and brought to limited success by the OCAW with significant support from the environmental movement. This style of challenging corporate dominance over health-and-safety decisions proved invaluable as the growing movement of collaboration between labor and environmental organizations was put to the test during the difficult 1980s.

Corporate Campaigning in the Reagan Era

Organizing around health-and-safety issues did much to bring the labor and environmental movements closer together through the late 1960s and the 1970s. Past efforts to merge the two movements furthered the build-on of possible forms that future blue-green coalitions would take.

And, in particular, the use of health as a common language to facilitate coalition building set perhaps the most important precedent. The successes of passing the OSHAct, NEPA, the creation of the Environmental Protection Agency (EPA) in 1970, and the other major pieces of legislation signaled the great potential for forming cross-movement coalitions between community, labor, and environmental groups. The birth of new coalition groups like the COSHes and EFFE also marked a shift toward collaboration, suggesting that merging the two movements could be a likely outcome of cooperative campaigns.

Gottlieb argues that by the late 1970s very few of the major environmental organizations integrated occupational health or social justice issues into their programs (1993, 291). Though several environmental organizations such as Greenpeace and the Sierra Club supported the Shell No! strike and publicly backed unions and their demands for more involvement in health-and-safety decisions, these remained isolated occurrences. The promise of blending environmentalists and trade unionists was unmet. Furthermore, the economic downturn and beginning of a recession in the late 1970s forced unions to retrench and focus their attention away from health and safety and toward maintaining some level of economic security.

Furthermore, the 1970s marked a significant change in the system of production for much of manufacturing in the United States. Whereas the Industrial Revolution concentrated industrial production in urban centers, the 1970s was marked by deindustrialization and economic structuring along more horizontal and flexible production lines (Mazurka 1999). Thus labor relations were also restructured and left in a weakened state determined by the high level of flexibility in the remaining light-manufacturing sectors, after a majority of the capital-intensive heavy-manufacturing industries such as steel and electronics moved overseas. With heavy manufacturing in urban centers replaced by smaller, less permanent light-manufacturing operations free to locate in poor and minority neighborhoods, the environmental impact of this new regime of production also shifted the nature of what the possible forms of blue-green coalitions would look like.

The election of Ronald Reagan to the presidency in 1980 marked an end to the organizing efforts around health and safety directed at creating federal standards for workplace safety, which had been one of the largest points of collaboration between the two movements. Reagan's desire to pursue widespread regulatory rollbacks meant an end to OSHA's involvement in workplace safety and an end to the New Directions grant

program and assistance to COSH organizations for health-and-safety training. In one of the first major policy decisions at OSHA under the Reagan administration, the new director attempted to withdraw the recently established cotton dust standard from further cost-benefit analysis (Gottlieb 1993). This action was protested by unions, the COSHes, and other occupational health groups and overturned by a Supreme Court decision; but it was nonetheless symbolic of a major shift in the government's stance on regulating occupational health and safety and the environment.

In response to the Reagan administration's attack on OSHA, a new blue-green initiative sponsored by the Industrial Union Department of the AFL-CIO and the Sierra Club emerged (Hays 1989; Obach 2004a). Though this initiative ultimately failed to get off the ground following a summit in Chicago in 1981, it marked an important effort on the part of labor and environmental leaders to form a united front against retrenchment at both OSHA and the EPA. This short-lived OSHA–Environmental Network also produced several state affiliates that were able to last a bit longer.

Accompanying the federal government's move away from social policy was a growth in corporate power, which was backed by new state and federal laws and court decisions. Corporate dominance over workplace issues and a declining union membership reduced the likelihood that the labor movement would prioritize bargaining for occupational health and safety (Gordon 2004; Gottlieb 1993). The organizations that made occupational health their priority faded from the mainstream labor movement and became marginalized within the broader discourse of labor rights. Environmental organizations, as well, faced a decline in membership during the Reagan years and were less inclined to incorporate issues related to the workplace (Dreiling 1998).

Efforts to establish coalitions and closer ties between the two movements during the 1980s thus faced challenges on several fronts. Declining membership for both movements meant fewer resources, which are necessary for social movement organizations to engage in coalition work. Reduced public support for labor and environmental issues meant that publicly oriented campaigns like the OCAW's Shell No! strike, if undertaken, would receive less positive attention and therefore generate less revenue. And a more laissez-faire state meant that fewer resources and less political support were available to both movements, forcing the two into occasionally heated conflicts over diminished resources—as in the case of the conflicts over the management of natural resources that came to characterize the relationship between labor and environmental organizations in the 1980s and early 1990s. More than anything, the pro-business

political climate of the 1980s demonstrated the importance of political opportunity to the viability of blue-green coalition building. Overall, the common enemy hypothesis did hold true, and the political climate that was hostile to both workers and environmentalists generally drove each to compete for what political scraps were remaining. For activists interested in bridging the labor-environmental divide, these limitations meant that new strategies were necessary. Building on the success of the Shell No! strike and faced with a nearly six-year lockout at a chemical manufacturing facility in Geismar, Louisiana, the OCAW developed a new strategy for labor-environmental coalition building that continues to bring environmental and labor activists together in a region of the United States where many communities are located along the fence lines of petrochemical refineries.

In 1984 the German chemical giant BASF began restructuring its Geismar facility and was eager to purge the OCAW from the workplace, as it had done from several of its other plants in the United States (Estabrook 1996). When negotiations between the union and local management failed to conclude in an agreement, the OCAW workers were escorted off the premises and told not return (Gottlieb 1993). The Geismar lockout occurred during a major decline in OCAW membership. Other locals were voted out by former members, and corporate management across the OCAW's various industries adopted an aggressive antiunion stance. The Geismar lockout was seen by the OCAW leadership as an important battle to win (Estabrook 1996). Failing to do so would only confirm the looming demise of union membership and power in the refining industry.

Following the model set forth a decade earlier in the Shell No! strike, the OCAW decided to pursue a corporate campaign to influence the company's leaders, shareholders, and the public by uncovering conflicts of interest, inefficiency, waste, fraud, or mismanagement, relying on outside pressure from community groups and consumer advocacy organizations to force BASF into a defensive bargaining position. The union pursued an innovative campaign that quickly framed BASF as a foreign corporation with roots in Nazi Germany that was not interested in the health and safety of its employees or the environmental health of its residential neighbors (Estabrook 1996). Billboards went up in the Geismar area claiming BASF was a corporate polluter interested only in profit. One the of OCAW billboards coined the term "Cancer Alley" to describe the region around Geismar that has a high density of chemical and oil refineries. Over 25 percent of the nation's commodity chemicals are produced in the region, concentrating a huge amount of toxic waste in the immediate area (Gottlieb 1993).

As part of the corporate campaign against BASF, the OCAW local began monitoring environmental emissions from the facility along the plant's fence line. Data collected by the union was used to bring charges against the company for violating environmental regulations. However, few major environmental organizations operated in the region, and the level of local community activism was relatively low. In its most innovative strategy, the OCAW decided to create the lacking environmental awareness by working with local community activists to organize new environmental groups. The OCAW, with funding from the National Toxics Campaign, sent a full-time staff person to work on bringing local neighborhoods and parishes together and formed several new environmental justice organizations, a few of which continue to operate today. In particular, the union created the Louisiana Labor–Neighbor Project to bring local parish residents into the fight against BASF.

Though most of Geismar's residents had been aware of the environmental problems posed by the BASF plant and numerous others, prior to the intervention of the OCAW in local affairs, little organizing work within the community had been done. The OCAW workers provided insight and much-needed information about the operations of the facility and provided community groups with the resources necessary to form their own organizations. The collaboration between the union and the local community groups was based around a shared concern about health. Though the OCAW members that were locked out wanted to return to the financial security of their jobs, they were also critical of the operational approach adopted by BASF to cut costs and were openly critical of the increased risks incurred by the hiring of scab workers who were less familiar with the plant's operations. The OCAW claimed that the union's presence in the facility insured a safer and cleaner operation that would reduce the impact on the surrounding environment—which was the main concern of community residents.

What made this identification of health as a central issue to both the union and community residents was the OCAW's progressive stance on environmental issues. In part due to the national leadership of the union at the time, the OCAW came to the conclusion that manufacturing facilities that operated in an environmentally destructive fashion were less secure workplaces than plants with better environmental records. Though the EPA and OSHA were both operating on limited budgets, the OCAW realized that the public if acting in addition to the state agencies would place more pressure on companies to improve their operations and clean up their act. Facilities that failed to do so would eventually be

closed down. Thus in the case of Geismar, the OCAW was willing to be critical of BASF's environmental record, even though it might mean that the plant would be closed down—fulfilling the threat of job blackmail. Other major unions such as the Steelworkers adopted a similar policy in the 1980s, realizing that clean air was an increasingly salient public issue and hinting that steel plants that continued to emit high levels of air pollution would eventually be closed down by their parent companies to avoid the high costs of cleanup and retrofitting. In this sense, the environmental history of corporations like BASF became a tool for unions to pressure corporations to allow more union involvement in management decisions on health and safety. Claiming that the more experienced and tenured union employees possessed vital knowledge about the optimal performance of a facility, unions such as the Steelworkers and the OCAW made a fundamental connection between labor and the environment.

The OCAW eventually won the battle with BASF, and most of the locked-out employees were able to return to work. Through the corporate campaign, the OCAW created a number of successful environmental justice organizations in Louisiana and brought them into contact with the broader network of the environmental movement, both nationally and internationally. In fact, several Geismar residents and union employees traveled to Germany and met with representatives from the Green Party to protest outside BASF's corporate headquarters (Gottlieb 1993). A victory for any union in the 1980s was exceptional, and the OCAW struggle in Geismar was exceptional. By focusing on the need for environmental awareness in the region and investing the time and financial resources to developing a network of community and environmental activists, the OCAW developed one of the most successful blue-green alliances. And by linking the health threats of chemical refining and the importance of worker empowerment, the OCAW set the stage for future labor-environmental coalitions.

Tony Mazzocchi, while not always physically present in Geismar at the time, was especially important for the BASF campaign (Leopold 2007). Mazzocchi developed close ties with a number of environmental leaders and, as legislative director, pushed his union to collaborate with the environmentalists. After a failed bid for the presidency of the OCAW in 1979, Mazzocchi joined the Labor Institute (Leopold 2007). As part of this work, he developed the concept of a Superfund for Workers, modeled after a combination of the GI Bill, which had offered education and training to soldiers returning home from World War II, and the pool of money created by the Superfund Act to clean up toxic waste. Mazzocchi believed a similar pool of money was necessary for workers in environmentally

harmful trades such as chemical manufacturing and oil refining (View 2002). Mazzocchi promoted his Superfund for Workers with the foresight that these types of occupations were not sustainable and that eventually employees in these sectors would be faced with unemployment unless they could transition into new and better jobs (Gottlieb 1993). Just as corporate polluters would be held liable for leaving behind hazardous waste in former facilities, they should also be required to provide suitable retraining and transition programs to employees who lost their job because of stricter environmental regulations. Today the concept of a Superfund for Workers is commonly referred to "just transition" and is promoted by the Just Transition Alliance, itself a blue-green coalition dedicated to increasing environmental awareness within the labor movement and advocating for state intervention on behalf of workers displaced by environmental regulations (View 2002).

Another important issue linking labor and environmental interests that emerged in the mid-1970s and expanded in the 1980s was "the right to know." As I develop more fully in chapter 4, the right-to-know movement was spurred by a growing concern with the discovery of toxic chemicals and substances in unsuspecting communities and workplaces. The toxic waste discovered in the Love Canal neighborhood of Niagara Falls, New York, in 1978 inspired a number of local activist organizations to push for the right to access information regarding the use, storage, and disposal of toxic substances in their communities (Szasz 1994). Workers and unions also sought right-to-know laws, as unsafe working conditions were often linked to a lack of information regarding the substances used in common production processes. Frustrated with the lack of information regarding what substances workers might be exposed to, labor activists, and COSH specialists in particular, began organizing worker-citizen right-to-know campaigns directed at the state and federal level. These campaigns greatly benefited from the collaboration of environmental and labor organizations.

One of the major anti-toxics organizations to form in the 1980s was the National Toxics Campaign, which spearheaded the fight to reauthorize the Superfund Act in 1986 and assisted thousands of organizations across the country in their local environmental struggles against toxic waste (Cohen and O'Connor 1990). Before its demise, the National Toxics Campaign also led the movement to prevent pollution. Based on the notion that gaining access to public information would lead to a reduction in pollution, the National Toxics Campaign took part in a national effort to prevent toxics from being used in the workplace—both benefiting workers and ensuring that toxics could never escape into communities.

Though the 1980s was a difficult decade in terms of both labor and environmental organizing, a number of blue-green coalitions did emerge to challenge the growing hegemony of corporate America and the pro-business federal administration. However, the fear of job loss kept most unions from acting outside the narrow agenda of wages, job security, and benefits. The conservative leadership of the AFL-CIO distrusted progressive leaders like Tony Mazzocchi who advocated for increased collaboration with the environmental movement. Instead, they focused on bargaining for what limited concessions management might grant. Even so, the continued growth of working-class environmentalism, as demonstrated by the environmental awareness of the locked-out OCAW workers and the joining of identities in the right-to-know movement, hints at an increasing likelihood of cooperation between the two movements (Schwab 1994).

Environmental Justice and Labor

In the late 1970s and early 1980s, numerous local environmental justice organizations began to form across the United States. These organizations, based in minority and working-class communities, formed a movement that is distinct from the mainstream environmental movement (Bullard 1990, 1993; D. Taylor 2000). This new movement sought to redefine environmentalism as much more integrated with the social needs of human populations, as opposed to the more nature-centric focus of the mainstream movement (Pellow and Brulle 2005). This emphasis on social justice is grounded in working-class environmentalism that stresses the importance of a healthy environment where individuals live, work, and play.

Adopting an environmental justice framework in order to build relationships between blues and greens creates a framework that helps to overcome the class divide that traditionally divides the two movements. The class divide is not crossed by working with mainstream environmental groups but by working with environmental justice organizations that share a similar class orientation with labor organizations. Mainstream environmentalism is characterized by a biocentric point of view and many of the largest mainstream organizations are focused on preserving wilderness and wildlife and are less interested in protecting jobs and human health. Environmental justice activism has a much more anthropocentric conceptualization of the natural world, locating issues of livelihood at the heart of environmental action (Lewis, Gould, and Roberts 2002). The conflict within the environmental movement between mainstream biocentric organizations

and grassroots environmental justice organizations often centers on the degree to which an organization believes anthropocentric issues should be addressed. For example, in 1998 the Sierra Club experienced internal divisions over the question of whether the group should take a position on the link between immigration and the environment. Ultimately, members of the Sierra Club voted against the position of reducing immigration to protect the environment in recognition of the need for global stewardship of the environment that did not distinguish between human population patterns and broader ecological degradation. However, given this internal conflict within the environmental movement as a whole, labor's anthropocentric outlook makes it easier to form relationships with organizations that share a similar approach to integrating social and ecological issues.

The socioeconomic position shared by working-class labor activists and environmental justice activists, which Pulido (1996) calls "subaltern," means that the two groups are frequently joined in their opposition to certain institutions or actors. Since we have entered a period of privatization and growth of global capital, transnational corporations have increasingly gained attention as the primary actors behind much of the inequality opposed by labor and environmental justice organizations. These two movements share a counterhegemonic resistance to the growth of global capital and the increasingly borderless race-to-the bottom strategy that multinational corporations have adopted. Due to their shared status within the socioeconomic structure, labor and environmental justice activists can organize direct opposition to corporate behavior. Certainly this was the case with the formation of the Louisiana Labor–Neighbor Project in which the OCAW helped develop local environmental justice groups (Estabrook 1996).

The peril of utilizing an environmental justice framework for building labor-environmental relationships is the community-oriented focus inherent in the discourse of environmental justice. The environmental justice movement is very much about grassroots organizing and addressing local environmental hazards. Though the environmental justice discourse has recently been infused with more global critiques of structured inequality, the focus of grassroots activism begins with a local agenda. What has led to difficulty in past labor-environment relations is the tendency for the local environmental hazard to be an industrial facility that labor members depend on for their livelihood. Challenging local environmental hazards in the past has been about closing polluting industrial sources. Corporations, when faced with local community resistance utilizing an environmental justice discourse, have found it easier to close down an offending site

rather than negotiate with community members—if the corporation decides to take action at all (Kazis and Grossman 1982). Labor activists may not be inclined take on an agenda that might close down their source of employment. Labor unions have, therefore, been more likely to work with environmental groups at the national level, meaning mainstream environmental organizations that are better funded than environmental justice groups.

In understanding the importance of identity for bringing together labor and environmental groups, it is hard to ignore this "jobs vs. the environment" concern. Though environmental justice activists define the environment as where "we live, work, and play," the majority of conflicts involving environmental inequalities also involve inequalities in employment opportunities. Petrochemical plants along Louisiana's Cancer Alley are next door to African American neighborhoods, but they rarely employ those residents—creating a pattern of inequality between who benefits from the plants in terms of wages, health care, and retirement and those who must live surrounded by and exposed to the plants' pollution (Lerner 2005; Roberts and Toffolon-Weiss 2001). It has been difficult to consolidate the identities of worker and environmentalists when there is pre-existing conflict between the two.

From Spotted Owls to Turtles and Teamsters

A new era of labor-environmental relations was heralded by the popular media after four days of riots and protests in the streets of Seattle outside the World Trade Organization's ministerial meetings in November 1999. News coverage focused on environmental activists dressed in turtle costumes to protest the impact of free trade on the environment, claiming that free trade would result in the elimination of regulations protecting declining turtle populations. Labor activists from a wide variety of unions were also present in volume and occupied the public spaces outside the WTO summit and, on occasion, shared protest space with environmental activists. A number of media outlets picked up on this co-occurrence of protests—some of which emerged out of the chaos and some of which were pre-arranged—by labor and environmental activists and dubbed them the "Turtles and Teamsters alliance." This alliance was not a surprising convergence of interests, in as much as both groups were concerned with the global neoliberal lack of regulatory protection. The fact that the organizations were working together was the main story, though the

visibility of the collaborative protests was not a matter of fortuity and had been coordinated by leaders from both movements.

Politicians and the media were informed in advance of their happening of the planned protest events by environmentalists and labor. Only a few days before the WTO meetings, President Clinton told workers at a Harley-Davidson factory in Pennsylvania that "I want you all to watch Seattle when it rolls around. Every group in the world with an axe to grind is going to Seattle to demonstrate" (Postman 1999). Images from the WTO protests make it appear that the groups protesting in union arrived there and converged in the chaotic streets of Seattle through a happenstance of similar interests, however, there was much planning directed at presenting a united front by labor and environmental groups against corporate-led globalization. Although the major headlines read "Turtles and Teamsters," it was in fact the United Steelworkers and the Sierra Club that were responsible for coordinating the blue-green solidarity. The relationship between these two large international organizations was particularly strong in the redwood forests of the West Coast, with an unexpected common ground found where only a few years earlier heated battles had been fought between loggers and environmentalists.

Like the alliances formed as part of the corporate campaigns pioneered by the OCAW in the 1970s and 1980s, the Steelworkers found themselves making common cause with environmental organizations, including the Sierra Club, in opposition to the same corporate enemy. The Maxxam Corporation with its chief executive officer, Charles Hurwitz, gained a reputation in the 1980s as a notorious corporate pirate, infamous for purchasing struggling companies and disassembling them for profit (Juravich 1999). Hurwitz first incurred the anger of the Steelworkers after a hostile takeover of Kaiser Aluminum in 1998. As was Hurtwitz's style, Kaiser Aluminum was quickly broken up and its pieces sold to new corporate entities (Gordon 2004). One of these aluminum plants, located in Ravenswood, West Virginia, was sold to the freshly incorporated Ravenswood Aluminum Company, which immediately reduced wages and increased the workload to maximize profits (Juravich 1999). After a particularly harsh summer, in which workplace accidents and fatalities rose significantly, USWA Local 5668 went on strike and was subsequently locked out for two years (Gordon 2004).

The Steelworkers came into conflict with Maxxam/Kaiser again on September 15, 1998, when three thousand union members went on strike after Kaiser officials failed to bargain in good faith with the union. USWA's lead negotiator and district director, David Foster, claimed that "from the

start of these negotiations, Kaiser's violation of federal labor law has made bargaining and reaching an agreement impossible" (Gordon 2004, 341). At stake in the aluminum plant walkouts was the protection of four hundred at-risk jobs, additional wage and health-benefit concessions, and improved working conditions. Kaiser refused to bargain with the union, setting off an unsuccessful four-month strike at two plants in Washington state, as well as three other Kaiser aluminum plants in the United States.

Thirteen years earlier, Maxxam had acquired Pacific Lumber in Humboldt County, California, whose forests had been managed for the long term; but after the leveraged buyout orchestrated by Hurwitz, the company tripled the rates of clear-cutting (Arch 2001). A swath of two hundred thousand clear-cut acres resulting from this policy triggered numerous lawsuits and protests from environmental groups such as Earth First! and the Sierra Club. These lawsuits focused on the destruction of the habitat of the endangered spotted owl by Pacific Lumber under the direction of Maxxam. The workers at Pacific Lumber, who also happened to be represented by the Steelworkers, enjoyed short-term gains associated with the acceleration in cutting, but they soon faced job blackmail as lawsuits brought under the Endangered Species Act slowed down their work. However, the environmental lawsuits against Pacific Lumber were fought over a thirteen year period and thus reduced the immediate impact felt by the loggers and their families. The employees at Pacific Lumber were not immediately aware of the past record of the Maxxam Corporation and the likelihood that after all profits were drained from the forest that they would likely be without jobs—not due to the environmentalists and their spotted owls.

Rather than opposing the unsustainable practices of Maxxam, Pacific Lumber employees were given paid leave to attend a hearing regarding a deal entered into by the federal government and the Maxxam Corporation over the fate of the Headwaters old-growth forest where their operations were located. This contentious agreement, which would later become known as the "Headwaters deal," would pay Hurwitz some $480 million of federal funds to protect only three thousand acres of old-growth forest. At the hearing, employee after employee of Pacific Lumber stood up to attest to the connection between the company and their livelihoods and the future of their families in a clear example of job blackmail as conceptualized by Kazis and Grossman (1982).

As logging jobs began to decline due to overcutting, unemployed workers began to be transferred within the Maxxam organization from the redwood forests of California to the aluminum plants in Washington state to

be used as scab labor during the Steelworkers' strike (Moberg 2000). Realizing that the workers shared a common threat in their corporate owners, the striking Steelworkers sent activists down to California to attend the hearing on the Headwaters deal. Speaking directly to the Pacific Lumber employees during the meeting, one of the striking Steelworkers said, "Let me tell you, when Charles Hurwitz decides that this is no longer a profitable place, not only will the trees be endangered but, ladies and gentlemen, your jobs and your livelihood will be endangered" (Arch 2001). In the Steelworkers' attempt to build solidarity with the workers at Pacific Lumber, they discovered an unanticipated ally: the environmental groups opposed to the Headwaters deal.

Earth First!, the radical environmental group that generated most of the media attention regarding the spotted owl, campaigned against Maxxam and Pacific Lumber with a website they created, "jailhurwitz.com" (Arch 2001). By October 1998, the Steelworkers in Washington had been striking for a month without much success. In looking for ways to build pressure on the Maxxam Corporation, the union found the Earth First! website and struck up a long-distance relationship. The two groups realized that Hurwitz and Maxxam were too strong to be defeated individually, and so they formed joint campaigns to confront their shared corporate enemy. Part of this connection emphasized the hazardous working conditions at the Pacific Lumber mills, where accelerated work schedules increased the number of accidents drastically. Environmentalists joined picket lines outside the aluminum plants, and the Steelworkers joined the fight against the clear-cutting by Pacific Lumber. Out of these joint campaigns the Alliance for Sustainable Jobs and the Environment (ASJE) was formed. As external production factors, such as the globalization of timber production and the consolidation of the major corporate producers, reshaped the nature of timber extraction, a new opportunity to invest in sustainable production and ecological restoration was created and capitalized on by the ASJE. Like the major shift in production regimes in the 1970s, the globalization of the timber industry opened up new opportunities for coalition building based on the possibility of pursuing more sustainable alternatives. Now able to offer unemployed loggers the possibility of working to restore the forests, the environmentalists in the ASJE could offer real benefits to its labor allies and secure the future of the labor-environmental alliance.

The ASJE solidified its purpose and commitment to bridging the labor-environmental divide outside the Maxxam Corporation annual shareholder meeting in Houston in May 1999, when activists from both movements publicly condemned the actions of Charles Hurwitz. Among

the signatories to the Houston Principles, the ASJE's founding document, were David Foster of the Steelworkers; David Brower, the former president of the Sierra Club and current Friends of the Earth president; Tony Mazzocchi of the OCAW; and Carl Pope, then president of the Sierra Club. At the heart of the Houston Principles was the condemnation of "rogue corporations" and the global exploitation of nature and workers to pursue corporate profit without accountability. Thus the story of the alliance formed from strange campmates from the endangered forests of Northern California and the aluminum plants of the Pacific Northwest is very much grounded in the sharing of a common enemy. However, this common enemy approach does not fully explain the overall success of the coalition, only its initial formation.

The ASJE succeeded in applying public pressure on Maxxam, and the Steelworkers union was reinstated at the Kaiser aluminum plants with several modest concessions (Gordon 2004). Environmentalists benefited from their participation in the blue-green alliance as well. When the Steelworkers were offered additional concessions if they dropped a lawsuit against Pacific Lumber, the Steelworkers refused and maintained solidarity with their new environmental allies (Arch 2001). Recognizing the need to continue the momentum generated by the corporate campaign, the ASJE began preparations for the WTO summit and dedicated a significant amount of resources toward ensuring that the blue-green presence at Seattle would be noticed.

To simply refer to the presence of both labor and environmental activists in the streets of Seattle as a short-term marriage of convenience between "turtles" and Teamsters misses the decade of blue-green alliance building that resulted in the ASJE. Though most of the labor and environmental activists approached the planning for the summit as an opportunity to pressure the Clinton administration and U.S. trade representatives to include labor and environmental provisions in the negotiations, identifying corporate actors as an important part of the negative effects of neoliberal globalization was as central a message (Moberg 2000). However, much of the media coverage failed to capture this message and instead focused on the unlikelihood of sustained solidarity between the labor and environmental movements. As Gordon (2004) notes in his history of labor-environmental relations in the United States, "many journalists and commentators continue to portray cooperative efforts between the labor and environmental movements as aberrations" (344). Most of the resulting media attention from the WTO protests failed to identify the ASJE as an important organization or to recognize the Steelworkers for their collaborative work.

Instead, "Turtles and Teamsters" became the popular headline. More progressive media outlets such as *The Nation* magazine reported on the importance of redefining solidarity in the context of a global market (Moberg 2000), but most press coverage of the protest events focused on the importance of the labor-environmental connection. Headlines like "Longtime foes join to promote jobs and earth" (Greenhouse 1999) or "Look who's marching together post-WTO" (McClure 1999) played up the unlikely alliance. This misdirection of attention resulted in a self-fulfilling prophecy of sorts, when only eighteen months later the so-called Turtles and Teamsters alliance fell apart. The alliance between the Sierra Club and the Teamsters union faced serious divisions over the Bush administration's proposed energy policy, specifically over developing oil reserves in the Arctic National Wildlife Refuge (Gould, Lewis, and Roberts 2005; Obach 2004b). The failure of the Turtles and Teamsters alliance received less media attention than did its formation; in both instances it was portrayed as a fragile coalition.

Despite the media's interpretation of the WTO protests as an ultimately failed attempt to align the interests of the labor and environmental movements, the ASJE continued to work toward developing a joint agenda around the issue of free trade. In September 2003 the ASJE organized the March to Miami that would both symbolically and physically connect the 1999 Seattle protests to a similar protest event against the Free Trade Area of the Americas (FTAA) summit held in Miami. Traveling across the country from Seattle to Miami in a blue-green bus, ASJE leaders conducted a series of educational forums, protest marches, and press briefings to inform communities of the pending economic and environmental harms posed by the FTAA. When the blue-green bus finally reached Miami in November 2003 it joined a massive social protest on the scale of the WTO protests. However, in this instance, police and summit organizers were prepared for the protesters and cordoned off limited areas for the events. Ultimately, the FTAA protests generated limited press coverage and social awareness.

Though the WTO and FTAA protests were important events signaling a shift toward an alignment of interests between labor and environmental organizations, the significance of the Turtles and Teamsters alliance has been overdrawn. Whereas the AJSE has attempted to transform the discourse around the question of environmental regulation and logging, the Turtles and Teamsters alliance is more a story of strategic opportunity. The real blue-green alliance building that led to the presence of both movements in the streets of Seattle has roots in the struggles over natural resource management and worker and community control over industrial production decisions in the Pacific states. Though health issues were a

limited factor in the formation of the AJSE, the foundation on which the coalition is based is grounded in a working-class environmentalism that values both the aesthetic and economical values of the redwood forests. Thus it was the alliance between the Steelworkers and environmentalists, not that of the "turtles" and Teamsters, that accomplished a discursive shift similar to that of using health as a common ground.

By identifying a common enemy, the Steelworkers union made strategic alliances with a number of environmental organizations, ranging from the mainstream Sierra Club to the radical Earth First!. The formation of the ASJE allowed the Steelworkers to overcome a corporate struggle through the application of political and public pressure from both movements. The ASJE continues to work toward a sustainable economy in the Pacific states and has developed a restoration jobs program to retrain unemployed loggers to work in the restoration of clear-cut forests. Corporate campaigns also remain an important element of the ASJE strategy and continue to unite new groups of organizations concerned about the linkages between hazardous workplaces and environmental degradation.

Sustainability has continued to be an interesting issue for labor and environmental groups to jointly address. In 2003 a major project cosponsored by the Institute for America's Future and the Center on Wisconsin Strategy (COWS) called the Apollo Alliance was launched to begin a national dialogue on the energy crisis. Taking its name from President Kennedy's 1962 announcement of the successful race to the moon, the Apollo Alliance has issued a similar challenge to the United States to invest in clean energy technology that benefits both the labor and environmental movements. Advancing a motto of "Good Jobs, Clean Energy," the Apollo Alliance is doing important identity consolidation work to get both movements thinking about how to grow the energy sector in a way that is sustainable and environmentally friendly. The organization sees itself as a "national movement that links job creation, environmental stewardship, and energy independence." Endorsed by a long list of labor unions and environmental groups, the Apollo Alliance has largely cornered the media's attention on the future of blue-green endeavors for the twenty-first century.

Looking Forward

The short-term solidarity forged between the "turtles" and Teamsters in the streets of Seattle and Miami failed to weather shifts in the national political climate. The work of the ASJE in bringing together the two

movements was overshadowed by the collapse of the more publicized Sierra Club and Teamsters alliance. While questions surrounding the impact of free trade policies served to bring together diverse social actors, the war on terror generated divisiveness. In particular, the issue of securing a domestic source of energy and the proposed exploratory oil drilling in ANWR quickly divided the labor and environmental alliance (Obach 2004a). Motivated by the promise of new jobs, the Teamsters union backed the Bush administration's proposal, much to the dismay of its environmental allies. But as Obach (2004a) argues, the Teamsters were drawn into the Seattle protests by threats to existing jobs that were already beginning to disappear—allowing them to take radical action to preserve their interests. But in the case of ANWR, the "jobs versus the environment" issue brought up the potential for new employment, shifting the interests of the Teamsters to a very different bargaining position. Thus the Turtles and Teamsters alliance appears to have been more of an opportunistic strategy employed by the Teamsters than the creation of solidarity between the two movements.

However, there is a substantial history of cooperation between the two movements that suggests much potential for serious coalition work. Past examples drawn from the histories of the two movements have created a pool or potential coalitional forms and strategic repertoires that each generation of coalition builders has been able to draw on. If we trace this history of cooperation back to the early formative days of both movements, we can see a fundamental connection the Progressive movement's drive for urban environmental reform. Prior to modern environmentalism that was formalized in conservation-oriented groups like the Sierra Club, there was no significant distinction made between hazards in the workplace and environmental hazards in the city. The Progressive activists identified a common cause for both occupational and environmental hazards, namely a lack of democratic involvement in decision making—whether in the workplace or the state. This fundamental view of worker empowerment and environmental protection is the foundation for building the working-class environmentalism that is necessary to ensure the development of enduring blue-green coalitions.

The reform agenda of the Progressive Era, however, failed to coalesce into a lasting alliance between labor and environmentally minded individuals and groups. The heavy industrialization brought about by World War II led to the divergence of the two movements away from working together on urban environmental reform. During the period between the 1930s and 1950s, both movements developed unique identities that came

to define the mainstream core of each. The environmental movement focused most of its attention on preserving open space and protecting threatened species, while the labor movement focused on developing a stable membership base as the anticommunist agenda of Senator McCarthy and those with similar views forced the movement to redefine itself. This period marked a substantial decline in all types of blue-green activity.

The militant 1960s and the protest-fueled growth of both movements provided new opportunities for coalition work. The labor movement and the nascent environmental movement were part of a larger social movement landscape engaged in protesting the Vietnam War, which led to direct action protests against other social ills. Both labor and environmental historians attribute the legislative victories won in the late 1960s to the cooperative campaigning between major organizations within both movements. Perhaps more important than alliance building between the big organizations for our understanding of blue-green alliance was the increasing growth of grassroots organizations focused on occupational and environmental health. Health and safety became a growing priority for the labor movement, and the more progressive elements began to make participation in decisions affecting occupational health and safety a priority. Among these, the Steelworkers and the OCAW led the charge within the mainstream labor movement, while the UFW also incorporated concerns about health and safety into its organizing campaign. Environmental groups sided with labor's health-and-safety struggles and in some instances provided organizational support for the campaigns. But as activists began to realize that without a political mandate to enforce new labor and environmental legislation, they would have to adopt new strategies. The corporate campaign, best exercised by the OCAW in the Shell No! and BASF campaigns, transformed a corporation's environmental performance into a public debate and held industrial companies accountable for their labor and environmental practices by encouraging boycotts as well as protests outside corporate headquarters. These campaigns were particularly successful when residents living near these industries participated as a result of growing working-class environmental awareness (Schwab 1994).

The emergence of this working-class environmentalism, or what Gottlieb (1993) refers to as "alternative environmental organizations" and Szasz (1994) as a "populist environmentalism," developed into an anti-toxics discourse in community-based environmental organizations. This trend signaled a refocusing of attention on the urban environment and industrial facilities operating in sight of residential neighborhoods. The explosion of national media attention to the invisible threat of toxics

encouraged labor-environmental coalitions to advocate for the right to know, and this articulation of the civil right of workers and community residents to obtain information about an industry's operation continues to bring labor and environmental groups together today.

Rather than focusing on labor-environmental relations as defined by the short-lived Turtles and Teamsters alliance, I believe it is important to emphasize the long history of collaboration around health-and-safety issues that goes as far back as the 1910s and 1920s. Beginning with these health-oriented coalitions and leading up to the work of the OCAW and the COSHes, there is an increasing repertoire of potential coalition forms that use health as a common ground. There has not always been collaboration, as relations between the two movements have fluctuated during difficult times. Economic recessions, shifts in production regimes, and energy shortages have historically driven the two movements to their ideological cores, and this retrenching has occasionally resulted in heated conflicts such as the fight over protecting the habitat of the endangered spotted owl. Though these instances of conflict receive far greater public attention than the coalitions that emerge, they still reveal findings of importance to my theoretical analysis of the three cases in this book.

The importance of working-class environmentalism, with its emphasis on environmental health threats emanating from workplaces, is a central point of my analysis. Health issues, while sometimes peripheral to the core concerns of organizations that constitute both movements, nevertheless can serve to bring the two closer together. The legacy of health-and-safety organizing, developed in particular by the OCAW, has an important influence directly or indirectly each of the three coalitions examined in this book. History has shown that long-term coalitions are possible but require the development of a collective identity unique to the coalition. Marriages of convenience, like the Turtles and Teamsters alliance, lack this coalitional collective identity and are subject to fragmentation and dissolution when political opportunity structures shift.

Returning to the question of why labor-environmental coalitions form, it is clear that a combination of mechanisms is responsible for bringing these two movements together. First, sufficient resources are necessary to finance any coalition building effort, and they continue to be important in predicting whether or not the coalition will be successful in accomplishing its goals. Coalitions also require some shift in the political climate—a major event or an issue that serves as motivation for blues and greens to even consider collaborating. While the common-enemy approach does not always work, it can be an important political context in which these

coalitions may develop. Political opportunities, however, require skillful navigation on the part of coalition builders and bridge brokers. This brief history of both successful and failed blue-green coalition attempts tells us that some type of common ground that gives unions and environmental groups a shared sense of purpose and a justification for collaboration is necessary for a blue-green partnership to be truly successful.

In comparing the short-term strategic characteristics of the Turtles and Teamsters alliance to the more identity-based qualities of the OCAW blue-green model, it is clear that attention to developing a common identity leads to lasting alliances. In attempting to change how both movements view what it means to be a "worker" or "environmentalist" and create a common language that identifies environmental and occupational health problems as stemming from a common source, environmental and labor organizations advance the likelihood of a sustained alliance. With each successful effort, lessons are learned and precedents are set. Perhaps even more importantly, networks of like-minded activists are created and can be called upon in future endeavors. The examples of past alliances discussed in this chapter have shaped the development and trajectory of these three later coalitions. By paying careful attention to the construction of a common identity and by drawing on the rich legacy of health-and-safety organizing, the coalitions examined in this book have been able to accomplish their initial goals and to continue to find new directions and partners.

2

Promoting Precaution to Prevent Harm

Environmental reforms can have adverse consequences for the health of workers, which are unintended and largely ignored as new environmental campaigns are waged. Regulatory shifts in the handling of hazardous waste led to the concentration of toxics in working-class and minority neighborhoods (Bullard 1992, 1993; Bryant and Mohai 1992). Environmental campaigns targeting certain toxic pesticides like DDT created more occupationally dangerous formulations, leaving farmworkers at greater risk than they were before (Gordon 1999; Gottlieb 1993). No longer able to release high levels of air pollution into the environment, some industries responded to stricter regulations by sealing off ventilation mechanisms and concentrating hazards in the workplace (Wooding and Levenstein 1999). There are likely countless other examples of this exchange between workplace and environmental health hazards—the result of a command-and-control style of regulation that encourages industries to find ways to reduce pollution before it escapes into the environment. These unintended consequences exacerbate the divide between labor and environmental actors, compounding the effect of the perceived "jobs versus the environment" trade-off.

Though concern with protecting health has been a pivotal point of commonality between the two movements, identifying a practical means of applying shared values to an actual campaign is difficult work. Because blue-green coalition building has been largely underrated and ignored by

most labor and environmental organizations, understanding how to apply its potential requires significant time and energy. Most blue-green coalitions do not attempt to completely redefine the central purpose of their member organizations. Instead, successful coalitions find an existing common ground, or at least some hint of a common goal, that can serve as the foundation of the coalition. In the case of the Alliance for a Healthy Tomorrow, the labor-environmental coalition examined in this chapter, this existing common ground is the *precautionary principle*—an alternative regulatory approach to the management of hazardous substances. The AHT was forged in 2001 by a concerned group of scientists and activists to advance legislation to implement the precautionary principle in Massachusetts.

Blue-green coalitions are often developed as a strategic decision to meet challenges unassailable by a single social movement organization. Dwindling financial resources, low recruitment rates, changes in political climate, or cultural shifts can redefine how an organization pursues its goals and what other groups might be seen as potential allies. In the case of the AHT, which was originally a small project focused primarily on policy and science, the strategic decision to form bridges to the labor movement came about through a realization that rather than have unions as enemies, the group's goals would be better served by having labor in its corner. The AHT has been very successful in attracting support from the labor movement, in part through the strategy of using existing networks created by bridge brokers who build on shared health concerns. With the assistance of these bridge brokers, the AHT took steps to modify its original collective identity and strategic aims to include the interests of *both* environmentalists and workers.

The AHT's original mission—to find ways to implement the precautionary principle in Massachusetts—had to be broadened. Though the precautionary principle is applicable to the workplace and thus beneficial to workers, the idea behind the concept is grounded largely in environmentalism. As an organizing principle, the precautionary principle is relatively new to most labor organizers and union members in the United States. But the logic of preventing harm, which is at the heart of the precautionary principle, is not. In fact, for health-and-safety activists, the notion of eliminating hazards rather than managing them to "safe" levels is a fundamental philosophy that is reflected in the hierarchy of controls—where substituting hazardous practices is prioritized when feasible. Of course, costs and reticent management often prevent hazards from being completely eliminated, but the logic of prevention is shared by health-and-safety and environmental activists.

The precautionary principle is an alternative approach to managing toxic substances that places the responsibility for demonstrating the safety of a particular substance or activity on its producer. Originally developed in Europe as a solution to the challenge of crafting international environmental policy, the precautionary principle is currently utilized in several environmental laws and treaties in the European Union and in certain states, counties, and cities in the United States. As a new way of thinking about accomplishing the goal of reducing toxics, the precautionary principle is supported by many environmental organizations in the United States (Tickner 2003). The Alliance for a Healthy Tomorrow is among the lead organizations promoting this new development in American environmentalism and is one of the few representing the interests of both the environmental movement and the labor movement.

Such a prevention-oriented approach aims to develop a new discourse in environmentalism that is, as Gottlieb (2001) argues, "unbounded" by the conceptual limitations of a consumerist approach to regulation. The consumerist model creates a divide between preventing harm and limiting harm by encouraging individuals to alter their consumption to protect the environment (Szasz 2007). Protecting the environment in this consumerist model does not address the sources of toxic pollution, instead it encourages an individualistic approach that leaves those who are powerless to protect themselves at risk. By shifting the political debate around environmental protection to address opportunities for toxics reduction at the point of production, the AHT is creating new opportunities to engage the labor movement in dialogue about how to grow the economy while improving the health of both workers and community members.

The AHT did not begin with this connection in mind. Rather it is an example of how social movement leaders actively worked to construct a frame based on the precautionary principle that would resonate with both environmental and union values. Frame bridging was used to modify the precautionary principle so that elements of both occupational safety and health and environmental health were encapsulated within a single frame. The work of frame bridging requires allies who occupy roles in both movements. These bridge brokers are essential social movement actors who enable the transmission of frames across movement boundaries. In the case of the AHT, two COSH organizations have been vital to the effort to link workplace health and safety to broader public and environmental health issues. Through their leadership, the labor support for the AHT's activities grew in strength and representation. In addition to the Massachusetts Committee on Occupational Safety and Health (MassCOSH)

and the Western Massachusetts Committee on Occupational Safety and Health (WMCOSH), several key union locals have also played significant roles as bridge brokers. In particular, the IUE-CWA Local 201 has worked to bring additional support from within the labor movement in Massachusetts. Local 201's participation in the Alliance is interestingly based on the experience of occupational illness of one activist, who has diligently worked to prevent others from suffering from exposure to toxic substances in his workplace and in others. The final bridge brokers come from the University of Massachusetts Lowell, where activist-oriented academics in the School of Health and Environment and the Lowell Center for Sustainable Production lend their experience in working with the labor movement to the recruitment efforts of the AHT.

In this chapter I explore the evolution of the AHT from its inception as a project to promote the precautionary principle as an alternative approach to environmental decision-making throughout Massachusetts to its becoming a statewide alliance of labor and environmental organizations working to eliminate toxic substances from Massachusetts communities and workplaces. By examining how the leaders of the Alliance draw on occupational and environmental elements, we see how a joint identity based on the common ground of health is developed over time. Though the specific regulatory and political context of Massachusetts is unique, many of the same types of actors and groups involved in the AHT are found across the United States. The precautionary principle, in its slightly modified form that the AHT eventually adopted, has proven to be an effective means of communication across movement divides, and with each year of cooperation between blues and greens, the Alliance grows closer to creating a major shift in how we approach the management of toxic hazards.

Defining Precaution, Finding Ways to Implement the Principle

Before I discuss the formation of the AHT a definition and an outline of the history of the precautionary principle and its implementation as an alternative regulatory policy framework is in order. The Wingspread Statement on the Precautionary Principle from the January 1998 Science and Environmental Health Network conference states:

> When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.

> In this context the proponent of an activity, rather than the public, should bear the burden of proof. The process of applying the precautionary principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action. (Raffensperger and Tickner 2000)

One of the major challenges to coalitions of environmental, labor, and community groups seeking to protect health and the environment is the burden of scientific proof. The public, not government or industry, has typically carried the burden of proving that a particular activity or substance is dangerous, while those undertaking potentially hazardous activities are considered innocent until proven guilty and are generally allowed to proceed until something goes wrong. Under the current regulatory system, toxic chemicals often seem to have more rights and protections, stemming from the political influence of industrial interests, than citizens and the environment. Traditional approaches to managing potential health and environmental risks are based on an assumption that some level of harm is acceptable and the task of regulators is to keep exposures within these limits.

Establishing a cause-and-effect relationship linking an environmental or workplace hazard to an activity or product requires inordinate amounts of time and money, which advocacy groups generally lack. Some risks may even be impossible to understand scientifically, particularly when dealing with very low-dose exposures. When evidence is discovered, actions to prevent harm are usually taken only after significant proof of harm is established, at which point severe harm to the environment and the public may have already taken place. Further challenges to preventing harm, such as the regulatory approach to addressing potential hazards one substance or activity at a time—rather than as broad categories of chemicals or issue areas—make taking action to protect the environment difficult and time consuming. Even though limited evidence may suggest that a hazard may occur, the current system of regulation demands levels of proof that would require an impossible amount of time and energy. Most potentially hazardous substances already on the market today are lacking in basic information on their effects on health. Furthermore, once scientific evidence is produced, potential risks are assessed in a decision-making process that weighs the costs and benefits of pursuing a particular action. A report by the European Environment Agency entitled "Late Lessons from Early Warnings" details the great costs to society from some of the most

egregious failures to take preventive action when scientific evidence suggested harm but it was not fully proven:

> The costs of preventive actions are usually tangible, clearly allocated and often short term, whereas the costs of failing to act are less tangible, less clearly distributed and usually longer term, posing particular problems of governance. Weighing up the overall pros and cons of action or inaction is therefore very difficult, involving ethical as well as economic considerations. (European Environment Agency 2001)

Given the potential latent health and environmental consequences of inaction, the need for government intervention in the production, use, and disposal of hazardous substances is paramount.

Many environmental health organizations are looking to the precautionary principle as the solution, since it offers an alternative approach to managing risks that addresses the ethical implications of taking an action or producing a substance before its full effects are understood. The precautionary principle was first established as a guideline for environmental and public health decision making in Germany in the late 1970s, and it has been implemented in several international agreements and charters. One of the most important implementations of the precautionary principle internationally is the Rio Declaration on Environment and Development, also known as Agenda 21, from the 1992 United Nations Conference (known as the Earth Summit). The declaration states:

> In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. (Tickner 2000)

The United States is among the nations that signed and ratified the Rio Declaration, which ought to bind the United States to implementing the precautionary principle. However, very little has been done to effectively inject the principle into local, state, or federal policy. Comparatively, the principle has received much more attention and implementation internationally (Tickner 2000).

The precautionary principle was first introduced internationally at the First International Convention on Protection of the North Sea in 1984 (Raffensperger and Tickner 2000). To protect the North Sea from further harm from pollution from its bordering nations, convention delegates decided to propose that "a precautionary approach is addressed which may require action to control inputs of such substances even before a causal link has been established by absolutely clear evidence" (Raffensperger and Tickner 2000, 4–5). The precautionary principle has since been integrated into several other international treaties and agreements, including the 1987 Montreal Protocol regarding ozone depletion, the 1992 Global Climate Change Convention, and the 1994 Maastricht Treaty on the European Union (Tickner 2000). On a national level, several Scandinavian countries have made the precautionary principle their environmental and public health policy.

The precautionary principle was first officially contemplated as a possible regulatory framework for the United States in 1998 at a conference at the Wingspread center in Racine, Wisconsin, sponsored by the Science and Environmental Health Network. Commonly referred to as the Wingspread conference, the group of environmental activists, scientists, and lawyers met to define the principle in the context of the United States and to discuss potential methods for implementing precaution in public health and environmental policy.

The challenge of adopting the German approach to prevention in the United States begins with a slight mistranslation. The German term *vorsorge* (translated as "precaution") carries a sense of foresight and active preparation for reassessing the necessity of production processes that threaten human health and the environment. In the United States, a very similar approach developed as an alternative to a system of installing controls to reduce pollution to an acceptable level. Pollution prevention approach, or P2 as it is commonly known, reflects many of the same values as the precautionary principle but has received only a limited amount of attention from the labor and environmental movements (Weale 1992). While precaution suggests that consideration of potential hazards is necessary in decision making processes regarding the environment, a prevention-oriented approach calls for action to be taken to protect human health and the environment. Although this difference between precaution and prevention is mostly semantic, it captures the essence of the political debate faced by many advocacy groups working to promote the precautionary principle. The question of how to successfully implement the principle in an effective manner must deal with fears of stifling economic growth.

The 1998 Wingspread conference was the first attempt in the United States to bring together activists, policymakers, and lawyers to discuss potential solutions to this dilemma. Before brainstorming about how to best implement the principle, the Wingspread participants first faced the challenge of identifying a common definition of "precaution" from a sea of competing alternatives. The participants came up with a limited definition of the principle that outlined its main arguments. They identified three core elements: not delaying precautionary action because of scientific uncertainty; shifting the burden of proof to proponents of an action; and having open, informed, and democratic decision-making processes (Kriebel and Tickner 2001). The final product of the conference was the Wingspread Statement, a one-page summary of the discussions on the precautionary principle that situates scientific uncertainty at the heart of need for precaution: as discussed by the Wingspread participants, uncertainty becomes the reason for taking action to prevent harm and for shifting the benefit of the doubt to those beings and systems that might suffer harm. The important work of finding effective means for implementing the precautionary principle in regulatory form remained and continues to be the main challenge for the scientists and activists after they left Wingspread.

Although the precautionary principle is not expressly mentioned in U.S. law or policy, several laws have a precautionary nature and the principle is implicit in much of our early environmental legislation (Tickner 2000). Environmental, worker-safety, and food-quality laws often make reference to the necessity of erring on the side of caution in regulatory decision making. For example, the 1970 Occupational Safety and Health Act requires employers to "furnish to each of his employees employment and place of employment which are free from recognized hazards" (OSHAct 1970). Furthermore, the Occupational Safety and Health Act gave OSHA the authority to issue strict standards to protect worker health without specific regulations regarding the quantification of a potential health risk (Tickner 2000). Proponents of the principle argue that there is at least a tacit recognition among U.S. policymakers regarding the need for precautionary action in the face of scientific uncertainty. The core content of the contemporary precautionary principle is elaborated in five components:

1. Taking precautionary action before scientific certainty of cause and effect can be ultimately determined.
2. Shifting the burden of proof for safety to the proponents of a potentially harmful activity.
3. Exploring a wide range of alternatives for achieving an activity, including potentially foregoing the activity itself.

4. Planning with well-defined goals, instead of relying on future scenarios and risk calculations.
5. Developing more democratic and thorough decision-making criteria and methods. (Tickner 2000)

The most basic component of the precautionary principle is the duty to take action even in the face of uncertainty. Rather than wait for extensive toxicological and epidemiological studies to demonstrate a causal connection between a substance and environmental or health harm, governmental agencies need to act to prevent possible harm. Rather than relive late lessons from early warnings, as argued by the European Environmental Agency, decision-making bodies need to consider the implications of hesitating to act. The second component, shifting the burden of proof, includes both a financial responsibility for proponents of an activity to demonstrate the safety of their product and a duty to actively monitor the performance of their product for continued safety throughout its life course. The third component of the precautionary principle is a commitment to exploring a wide range of alternatives to a proposed action or product. Rather than asking what level of contamination or environmental harm is safe or economically optimal, the precautionary approach asks how an action might be pursued without causing any harm. There have been several criticisms directed at this third component, as the unintended consequences of public health and environmental interventions, such as the introduction of methyl tertiary butyl ether (MTBE) into gasoline, have also been costly in terms of health effects. In the case of MTBE, an environmental intervention to decrease air pollution led to a secondary environmental problem through leaking underground storage tanks that exposed communities across the country to a carcinogenic chemical through groundwater contamination. But just as the principle mandates that a primary action must be assessed for all of its effects, so must its potential alternatives.

The fourth component of the precautionary principle encourages planning based on well-defined goals rather than relying on a chemical-by-chemical approach to assessing risk. Though risk assessment can incorporate long-term planning, the emphasis is on managing on a problem-by-problem basis irrespective of more systematic regulatory flaws. This idea is exemplified by Sweden's interim environmental goal (revised) of phasing out all persistent and bioaccumulative substances by 2020, irrespective of whether scientific evidence links a particular substance to a defined health outcome. This allows Sweden's environmental regulators to take steps toward accomplishing this goal instead of spending time determining which substances necessitate immediate action. The fifth and final component of the

principle, the call for more democratic decision making in environmental and public health, requires a new approach to the management of risk that places as much emphasis on stakeholder input as it does on scientific risk assessment. In recognizing that scientific uncertainty leads to difficulties in policy decisions, potentially impacted parties should be included in the process of assessing a harmful act or product. However, the means of implementing this democratic widening still remain unclear.

Building on these regulatory examples and the early work of the principle's domestic proponents, contemporary environmental, labor, and public health activists have developed a more nuanced definition of the concept, though the basic principle identified in the Wingspread Statement of recognizing scientific uncertainty, remains central:

> [The] underlying theme of the principle is that decision-making in the face of extreme uncertainty and ignorance is a matter of policy and political considerations. Science can inform that decision but it is foolish to think that "independent" or "sound" science can resolve difficult issues over cause and effect. Thus, a decision for further study or not to do anything in the face of uncertainty is a policy decision not a scientific one just as taking action would be. (Tickner, Raffensperger, and Myers 1998)

In March 2003 San Francisco became the first city to officially adopt the precautionary principle as its guiding environmental policy. Its board of supervisors and mayor put the principle into legislation, defining the precautionary approach as an environmental decision-making process that assesses the availability of alternatives using the best available science. According to the city's white paper on the principle:

> The primary idea embodied in the Precautionary Principle is vigilance against harm, which in turn prompts timely action, even in the face of scientific uncertainty. But that alone does not translate into sound policies protective of the environment and human health. Certain processes and norms…support its implementation. They are interwoven. (City and County of San Francisco 2003)

Putting the principle into law was sponsored by an environmental coalition called the Bay Area Working Group on the Precautionary Principle, which was made up a number of environmental health organizations, including the Center for Environmental Health, Commonweal, Clean Water

Action, the Breast Cancer Fund, Breast Cancer Action, and Urban Habitat. The Bay Area Working Group ran a successful campaign in the City of San Francisco to adopt a precautionary purchasing ordinance that mandates that the city consider environmental and health impacts when making municipal purchases to choose healthier, more sustainable alternative products. Across the bay, the City of Berkeley became the second city in the United States to adopt the principle by passing the Berkeley Precautionary Principle Ordinance on March 7, 2006.

In May 2004 a loose coalition of environmental, labor, community, and public health organizations from across the nation met in Louisville, Kentucky, to discuss the future of environmental health activism. During the meeting, participants took part in demonstrations and meetings in Louisville to support local community members' struggle against the dense petrochemical industries located nearby. The meetings resulted in the adoption of the Louisville Charter for Safer Chemicals, named to honor communities like Louisville and their campaigns against toxic chemicals. The charter calls for fundamental reforms to current chemical regulations at the national level to protect children, workers, communities, and the environment from further contamination. It calls for policies that require substitutions in production processes of safer alternatives; the phasing out of persistent, bioaccumulative, and highly toxic chemicals; the full disclosure of information on chemical hazards to workers and communities; and the comprehensive testing of all chemicals before they enter the general market. It concludes by pointing to government and industry for leadership in shifting to the production of safer substances:

> Together these changes are a first step towards reforming a 30-year-old chemical management system that fails to protect public health and the environment. By implementing the Louisville Charter and committing to the innovation of safer chemicals and processes, governments and corporations will be leading the way towards a healthier economy and a healthier society. (Louisville Charter for Safer Chemicals 2004)

By 2005 over fifty organizations, including the United Steelworkers, had endorsed the Louisville Charter, and support continues to grow. The growing support for the charter, which is the most recent incarnation of the precautionary principle, suggests that applied versions of it, even when the explicit term is not used, are being endorsed by mainstream environmental and labor movements.

Just as the precautionary principle is receiving increasing attention from the environmental and public health communities, so is it also beginning to receive skeptical attention from critics. Though there are many versions of these critiques, most focus on the notion that the implementation of the principle would halt economic development and therefore be costly in terms of profit, global competitiveness, and potential jobs. Because the principle is receiving so much negative attention, primarily from the chemical industry lobby, many of its advocates are working to develop specific and transparent plans for putting the principle into action.

Common Critiques of the Precautionary Principle

The following five criticisms have become the foundation of the collective-action frame of the countermovement that has developed in opposition to the implementation of the precautionary principle:

1. There is no single definition of the principle, rendering it meaningless.
2. There is no need for the Precautionary Principle, since the current system produces socially acceptable levels of risk.
3. The Precautionary Principle aims to achieve zero risk, which is impossible.
4. The Precautionary Principle is anti-science and based solely in ideology.
5. The Precautionary Principle will halt economic progress and development, costing the U.S. countless employment opportunities. (Montague 2004)

This countermovement is a hybridization of the state and industry, with attacks against the principle originating from both. The George W. Bush administration has been particularly adept at capturing the legitimacy of the term "precautionary" by applying it to its military preemptive activities, which are opposed by most environmental and labor activists. By applying "precautionary" to an unpopular war, the countermovement has successfully created a debate over the very meaning of the term.

As the precautionary principle continues to grow in popularity, activists in both the labor and environmental movements are watching for the next big step, a statewide implementation of the principle. Cities heavily influenced by progressive political actors like San Francisco or Berkeley

are able to pass precaution-oriented bills, but other cities and counties are likely to remain skeptical until a larger governmental body takes action. Furthermore, it remains unclear what the precaution-oriented bills that are passed will look like in their application. One important example is REACH, the European Union's approach to chemical regulation that went into effect in 2007. REACH, which stands for the Registration, Evaluation, Authorisation, and Restriction of Chemicals, governs the production and use of chemical substances and is based on a precautionary approach. Despite threats from the Untied States of legal challenges based on the creation of unfair trade barriers, REACH is today the most complex regulatory approach in managing chemical substances, requiring all chemicals produced in volumes over one ton to be tested annually for health-and-environmental effects. Additionally, REACH includes a provision for substances of particular concern to be thoroughly investigated by their producers prior to marketing or industrial use. Despite the earlier opposition of some of the German chemical workers unions, several other unions such as the European Trade Union Confederation and the Spanish Trade Union Confederation were major supporters. Though the European Union is far ahead of the United States in terms of progressive chemical policy and innovation, there is ample opportunity for the United States to catch up. The major challenge in adopting a similar model is finding a common ground for environmentalists and labor to work together to implement a prevention-oriented environmental policy. In Massachusetts, the Alliance for a Healthy Tomorrow is working toward modifying the precautionary principle to reflect the environmental politics of the state and is working to pass several pieces of legislation that would make Massachusetts the first state to implement the principle.

Setting the Stage: Anti-toxics Activism in Massachusetts

Massachusetts is among a small number of states that adopted pollution prevention reforms in the late 1980s and early 1990s to supplement command-and-control regulations that many environmental activists perceived as failing to reduce risks of toxic exposures. In 1989 the Massachusetts legislature enacted the Toxics Use Reduction Act (TURA)—a progressive law that combined a tax on chemical use with technical assistance to industry to find feasible alternatives to toxic substances. The origins of the 1989 Toxics Use Reduction Act can be traced to anti-toxics environmental activism in the early 1980s, which tended to focus on seeking

remediation for local toxic waste sites as there were discovered (Gottlieb 1993). Environmental activists across the nation were pushing right-to-know laws as a mechanism for investigating possible health risks to their communities and exposing industrial malfeasance and polluting behavior. Environmental activists in Massachusetts, represented largely by the state Public Interest Research Group (MassPIRG), introduced a right-to-know bill in the state legislature in 1983 that was eventually passed. Although it won a limited right-to-know privilege, the bill failed to change the regulatory framework of Massachusetts to add stricter regulations. However, the experience proved invaluable for future lobbying efforts. Activists realized that pollution statistics gained from community right-to-know laws were insufficient to prevent toxic contamination and that they needed an alternative, upstream approach. The activists turned to pollution prevention, requiring industrial firms to evaluate their production processes for alternative techniques that use less or no toxic chemicals.

State and national environmental activists advanced the idea that eliminating toxic substances from the production stream would prevent hazardous substances from escaping into the environment and made it a model for toxics use reduction. Drawing on recognition of the power of industrial innovation as a tool for change, toxics use reduction is based on the principle that the knowledge of how to remove toxic substances from the production process is best found within the industrial firm itself. Internally reviewing production processes creates an opportunity for procedural change. Toxics use reduction encourages individual firms to develop pollution prevention strategies rather than relying on a state agency to enforce prevention. TURA was passed after three years of debate and negotiations. Participants in the negotiation process attribute the passage of TURA to the threat presented by a ballot initiative sponsored by MassPIRG. MassPIRG gathered enough public support and momentum after the passage of the right-to-know law in 1983 to potentially pass a ballot initiative that would set strict state standards regulating the use of toxic substances. Fearful of this possibility, industry leaders and state officials met with environmental activists and negotiated a compromise that incorporated the principles of toxics use reduction. In 1989 the Massachusetts State Legislature voted unanimously to pass the negotiated form of TURA, creating a new regulatory framework for the enforcement of the new TURA law.

TURA is one of the most progressive prevention-oriented approaches to reducing toxics in the environment in the United States today. Rather than forcing strict limits and bans on Massachusetts's manufacturing sector, the law requires most businesses utilizing hazardous chemicals to

prepare reports assessing the necessity of such substances and the potential for finding a less hazardous alternative. In addition, the Toxics Use Reduction Institute (TURI) set up by the act works with industrial firms to develop less toxic alternatives, subsidizing the research and development costs that the chemical industry has called cost prohibitive. TURI makes pollution prevention a viable option for companies in Massachusetts that rely on expensive chemicals that they are ultimately liable for both in terms of use and disposal. Since 1989 TURI has helped industries in Massachusetts reduce their reliance on toxic chemicals, reducing the levels of hazardous environmental pollution by over 50 percent (Mayer, Brown, and Linder 2002).

Over the course of the operation of the TURA, representatives of industries have continued to claim that taxing users of toxic chemicals places Massachusetts at a competitive disadvantaged with neighboring states. Companies ranging from film processors to embalmers have challenged the legality of TURA in imposing a financial burden and to require them to complete alternatives substitution reports. When TURA officially reached its original goal of reducing the level of toxic chemicals in the state by 50 percent, many industrial lobbyists claimed that TURA was no longer necessary, that industries in Massachusetts operated at a cleaner and more sustainable level than elsewhere. TURI is located at UMass Lowell and is situated in the School of Health and Environment. This close working connection between academics in programs, such as Cleaner Production, Work Environment, and Occupational Hygiene, alongside state actors benefits both parties.

This activist orientation within a state agency is one of the unique organizational factors helping the Alliance for a Healthy Tomorrow achieve its initial success in getting its agenda off the ground. The original director of TURI, Ken Geiser, has worked as both a professional and anti-toxics activist to promote safer engineering solutions to environmental problems since the birth of this alternative paradigm. Other leaders of the AHT utilize their academic positions at UMass Lowell to conduct research that aids the goals of the social movement organization. Since UMass Lowell is home to one of the more progressive academic programs in sustainable production, it is an ideal location for conducting research relevant to an alternative regulatory paradigm that places a heavy emphasis on preventing pollution before it can harm the public's health or the environment. Scholars at UMass Lowell have a long history of being oriented toward activism and particularly with working-class populations. Since much of the work of the School of Health and Environment deals with workplace

research, the school in general has developed close ties to local labor organizations. By making their research available to union and nonunion worker organizations in the state, academics at UMass Lowell have gained a reputation for being amicable to the labor movement and are generally seen as serving the interests of the working class. Through these ties and reputation with the labor movement, they have become important bridge brokers for the AHT to draw on when seeking assistance in building alliances with labor organizations.

Although the passage of the TURA legislation was a victory for environmentalists and brought hazards in the workplace under sharper regulatory surveillance, workers have played a relatively minor role in implementing the practice of reducing toxics. Despite their being on the front line of campaigns against the release of toxic substances into the environment, the political fight to enact TURA was fought between environmentalists and industry over the potential economic costs of implementing a prevention-oriented regulatory regime. Even after two decades, TURA is conceptualized as an economic reform designed to assist companies in Massachusetts to find cheaper alternatives to toxic substances that have high initial investment costs and secondary costs in storage and disposal. The health and environmental benefits of reducing toxics in workplaces and the general environment do not factor directly into the operations of TURA, though these benefits are part of the greater political context for environmental and labor activists.

Forging the Alliance for a Healthy Tomorrow

The Alliance for a Healthy Tomorrow is made up of 144 member groups that include environmental groups, religious organizations, labor unions, social justice groups, immigrants' rights groups, and health organizations. Together, these organizations are working to promote legislative solutions to environmental and public health hazards based on the precautionary principle. The Alliance's mission statement presents a clear goal:

> The Alliance for a Healthy Tomorrow (AHT) is a coalition of citizens, scientists, health professionals, workers, and educators seeking preventive action on toxic hazards. Unfortunately, current environment and health policies do not protect us. Our individual rights and our quality of life are threatened by harmful pollution and products. Our goal is to correct fundamental flaws in government

> policies that allow harm to our health and environment. (Alliance for a Healthy Tomorrow 2008)

The coalition's origins can be traced back to the 1998 Wingspread conference on the precautionary principle. Following the positive reception of precautionary principle among the American scientists and activists in attendance, many of attendees returned home to Massachusetts and sought to form an organization to carry out the work of implementing the precautionary principle. Leaders from the Massachusetts Breast Cancer Coalition, the state Clean Water Action affiliate, the Lowell Center for Sustainable Production, and the Science and Environmental Health Network launched a new campaign, the Precautionary Principle Project (PPP), in 2000. The PPP was the first social movement organization formed to explicitly promote the principle in the United States.

Shortly after the PPP began working to promote the precautionary principle in Massachusetts, a public health scare began to call attention to the lack of proper preventive planning to address infectious disease in the United States. The spread of West Nile virus virtually from coast to coast over only a few years' time made the issue a preeminent one for public health agencies and community groups. Many environmental health organizations challenged the recommendation of the Centers for Disease Control to spray pesticides widely to reduce local mosquito populations, fearing that the toxic chemicals would have worse consequences than the virus itself to the public's health and the environment. The PPP seized on this issue in the Boston area and proceeded to conduct a variety of public educational forums, meetings with scientists and scholars on university campuses, and meetings with state and local public health officials to encourage them to be more cautious on spraying to stop West Nile virus. The organizers of the PPP then worked with state legislators and government officials to develop model policies with a focus on the problems associated with spraying and potential alternative solutions to address broad public health concerns. Building on the growing attention to the precautionary principle from academics both in the United States and abroad, several of the founders of the PPP put together a special edition of the journal, *Public Health Reports.* This special issue, published in fall 2002, contains nine articles from scientists from a broad range of fields in both the social and natural sciences. Each demonstrates how the precautionary principle might be applied to an issue related to public health and lends scientific legitimacy to the activists working to promote the principle as a regulatory framework.

Partially because of attention given to the West Nile virus, the PPP attracted a high level of attention throughout the state despite its short history. Other important shifts also began to occur throughout the state. The Silent Spring Institute, a nonprofit research organization focused on identifying links between the environment and women's health, began releasing important research linking chemical exposures and breast cancer in Cape Cod. This research, along with activism driven by the Massachusetts Breast Cancer Coalition, Clean Water Action, and others, led to a growing interest in finding alternative ways to identity links between health and the environment and to prevent further harm. Building on this momentum, the PPP hosted a well-attended international summit on the precautionary principle in Boston in fall 2001. More than eighty-five scientists from seventeen countries attended the conference hosted by the Lowell Center for Sustainable Production and titled "The International Summit on Science and the Precautionary Principle." Though the conference was held only two weeks after the 9/11 terrorist attacks, the international audience was dedicated enough to travel to the United States. The attendees reaffirmed the statement from the Wingspread conference as the basic definition of the precautionary principle and the need to find effective means for its implementation. They called for more interdisciplinary research on opportunities for implementing precautionary actions in environmental and public health research and the need to be explicit about the uncertainties in conducting such risk assessments.

Following the success of the 2001 summit on Science and the Precautionary Principle, the original organizers of the PPP perceived that there was enough support from a handful of groups for the project to begin investing in a new statewide campaign they decided to call the Alliance for a Healthy Tomorrow. Rather than continue on as a small policy interest group, leaders from the PPP thought it necessary to organize a grassroots coalition of state organizations working on a broad variety of issues in order to demonstrate to state politicians that an overwhelming majority of interest groups wanted to change the way environmental and public health decisions were handled. Though Clean Water Action and the Massachusetts Breast Cancer Coalition, early members of the PPP, are grassroots organizations, the inclusion of additional organizations would serve to broaden the AHT's membership base while focusing its attention on state-specific issues. The challenge in expanding on the membership of the PPP lay in identifying a target audience and crafting a collective identity based on the precautionary principle, but one that was also broad enough so that a wide range of individuals and groups would be interested in joining the

new organization. In Massachusetts, where the density of environmental organizations is relatively high, carving out an organizational niche to operate in and attract potential funders and members is difficult at best. The mainstream environmental movement is dominated by the state Sierra Club, MassPIRG, and the Environmental League of Massachusetts. Anti-toxics activism, which is closely connected to the work of promoting the precautionary principle, is represented in large part by Clean Water Action and the Massachusetts branch of New England's Toxics Action Center and numerous local groups. In addition, working-class environmentalism and environmental justice groups such as Alternatives for Community and Environment (ACE) serve the urban neighborhoods of Boston and provide a link to health-oriented activism.

Facing a decline in political influence and a lack of attention more broadly to workplace health issues, leaders in the health-and-safety profession in Massachusetts—along with more mainstream labor leaders—saw the Alliance as a potential vehicle for advancing their agenda. Building on the connections between the preventative orientation of the guiding principles of occupational health and the prevention inherent in the practice of public health, organizers in the AHT chose to incorporate elements of each in their new strategic framing of the precautionary principle.

The AHT's specification of the prevention-oriented approach focuses on the need for a new regulatory framework for environmental and public health policy that urges caution while simultaneously promoting innovation through production substitution. Its mission statement as of 2008 elaborates:

> The result of these current policies is that toxic substances end up in our bodies without our knowledge or consent. We have seen that ignoring early warning signs can result in serious illness. The tragic histories of lead and mercury, for example, demonstrate the harm caused when government and industry do not take action to protect public health.
>
> We will create proactive policies to prevent harm before the damage is done, and to choose the safest alternatives. These policies will be based on the core values of the AHT: Choice, Progress & Innovation, Rigorous Science, Individual & Corporate Responsibility, and Democracy. (Alliance for a Healthy Tomorrow 2008)

This statement in essence rebuts the common critique of the precautionary principle that it is a burden on industrial progress, that the great leaps

and bounds of science of the past century would have never happened if the government had placed cautionary roadblocks on the path to innovation. In response the AHT states it is founded on the principle that it is interested in "preventing harm, not progress." Finding a way to shape the coalition collective-action frame around the promise of preventing health hazards while at the same time creating new jobs is a major hurdle facing the organization.

The strategy adopted by coalition leaders in the AHT was not to completely reconstruct the collective identity initially built around the promotion of the precautionary principle but rather to modify the frame such that it could attract new adherents from the labor movement. Occupational health and environmental health share core ideological frameworks that are conducive to cooperation, but they remain structurally separate due to divergent regulatory frameworks and movement trajectories. The definition of frame bridging by Snow et al. (1986) requires that the collective-action frame be targeted toward a shared goal, which in the case of the AHT and labor organizations is the common goal of protecting workers and citizens alike from the hazards of toxic substances. Rather than expending high levels of organizational resources in completely transforming the core mission of the Alliance, coalition leaders selected the strategy of frame bridging and began working to link occupational and environmental health concerns. The work of frame bridging, then, can be seen as a discursive shift in the language used by the AHT's leaders so that its modified discourse would resonate better with a broader audience—including labor.

In order to attract new coalition members, the AHT's leaders began the process of carving out a new niche and collective identity by initiating numerous meetings between representatives of the Alliance and leaders and rank-and-file members of various environmental and union groups across Massachusetts throughout 2002. During this stage in the formation of the labor-environmental relationship, the activist leaders of the AHT made important alterations to how the organization defined itself, in an attempt to broaden their stated goals and strategies to accommodate the needs and interests of their potential labor partners. The key audiences targeted by this effort of frame bridging were occupational health-and-safety professionals and activists, as well as environmental health professionals and activists. These two fields, while conceptually similar, are often seen as structurally divergent, and they lack much professional interaction. In order to cross the boundaries between occupational and environmental health, the process of frame bridging was facilitated by bridge brokers. Tolle Graham, a labor activist and organizer with MassCOSH has worked

with a diverse assortment of workers in both union and nonunion settings, making her an important bridge broker for the AHT. She said of some of the difficulties in her bridge-building work:

> The coalition has to figure out better strategies for incorporating workplace hazards into campaigns. What's exciting is to see the possibility for real links made in our coalition with workplace hazards that are also present in our communities. We are the community as well and have an interest in protecting both. To be blunt—there is just not as much interest in detecting worker [health] problems inside the four walls of the workplace as there is when we amplify it as a community public health problem.

Thus the initial challenge in generating support from labor organizations was to broaden the scope of which populations would benefit from implementing the precautionary principle. This primary step is hindered by stereotypes held by activists in Massachusetts from both sides, as Ted Comick, an elected health-and-safety officer of IUE-CWA Local 201, commented:

> When [environmental groups] find toxics emitting from a plant, they see the whole plant as their enemy, as opposed to the fact that maybe there's people in the plant who have the same concerns and are in fact subjected to the toxics first and hazards first.

Other stereotypes emphasize the unintended consequences of environmental protection, in which environmental or public health regulations have an unanticipated negative effect on workers. For example, many workers in the Boston area believe that clean air laws force companies to seal plants, reducing outdoor air pollution but concentrating hazards inside the workplace. These toxic side effects often contribute to the negative stereotypes of environmentalists held by union members, who believe that environmentalists would rather "save the whales and kill the workers," perpetuating the structural rift between occupational and environmental activism. Another health-and-safety specialist elaborates on the influence of these stereotypes:

> Now, obviously, the environmentalists—and rightfully so—pushed that there not be so much dumping and polluting in all kinds of areas. But as a consequence, the company then kept those metal-working fluids longer and there was more dermatitis, more inhalation of

> pretty nasty materials by people than there necessarily was in the old times when every two or three months they'd just pump your machine and dump it.

Health-and-safety activists of one prominent union visualized the need for a blue-green alliance following the passage of stricter clean air laws. Said one:

> So all these [health hazards] were unintended. The environmentalists never intended that effect, but in fact there were certain environmental regulations that made life worse on a health-and-safety basis for workers in the plant. Now we were wise enough not to go in and blame the environmentalists for it, but it certainly would of helped if they had some type of alliance with labor up-front and could have thought of those effects and worked with us to help be a pressure point instead of fighting on our own with the companies.…And people that didn't see the whole picture would just blame the environmentalists and became enemies of environmental laws.

Environmental health and occupational health as ideological frames are isolated from each other by stereotypes and class differences, which are major hurdles to blue-green coalition building, according to Steve Gauthier of IUE-CWA Local 201:

> I think that the whole working-class occupational health-and-safety movement versus the middle-class environmental movement is some-thing that we have to work to overcome. To get the middle-class folks to understand what it is to work in a plant and to get the working-class folks in the plants to understand that the middle-class environmentalists don't have to be your enemies. They don't have to take a stand that says close down the plant. They could take a stance that says use alternative methods that keeps jobs here and does it in a way that doesn't kill people in the plant and doesn't pollute us in the community.

The work of frame bridging involved convincing labor leaders and the union rank and file that implementing an environmental regulatory framework in Massachusetts based on the precautionary principle would eliminate toxics in both the workplace and the environment without threatening union jobs. In addition, the environmental organizations in

the coalitions needed to be educated about hazardous working conditions and the formal social structures in which unions operate. Even though workers fear being exposed to toxics, and may know how to substitute safer products, they are often powerless to do anything about it and may not choose to risk their employment by challenging management decisions. Worker education on the precautionary principle can help environmentalists realize that the workers are fighting a war against toxics as well, but at the point of production—much farther upstream than most environmental regulation has so far been able to reach.

The notion of workers being on the front line of an unrecognized toxic war is part of the foundation underlying much labor interest in participating in the Alliance and is a key aspect in consolidating the identities of worker and environmentalists. Both parties are fighting against similar toxic exposures, but they identify with the struggle in distinct ways. According to one labor activist in the Alliance:

> Some environmental groups, because they're very good people but they are often middle class, maybe the families work in professional settings—doctors, lawyers, psychiatrists, professors, and things—that when they find toxics emitting from a plant, they see the whole plant as their enemy; as opposed to the fact that maybe there's people in the plant who have the same concerns and are in fact subjected to the toxins first and the hazards first. And maybe they've been fighting and maybe they've been looking for allies themselves. And I'm not saying the fault lies solely with the environmental groups. I mean, a lot of the unions see environmental groups when they raise concerns about the toxics in the plant as not caring about the jobs in the plant.

Perhaps the most challenging portions of the labor movement in frame bridging with environmental organizations are the building trades. The building trades, being heavily reliant on new construction jobs, are frequently in sharp disagreement with environmental organizations regarding the preservation of open space. New construction projects means new construction jobs, and because construction unions do not rely on fixed sources of employment, finding and bidding on the next employment opportunity is paramount. The building trades are little involved in the other two blue-green coalitions I studied for this book. In Massachusetts, however, the various building trades associations and councils are supporters of the Alliance for a Healthy Tomorrow and lend their political clout to supporting the various pieces of legislation. The process of garnering this

support required several concessions from the AHT to ensure that chemical substitution would not eliminate construction jobs. These strategic concessions included limiting the substances targeted for potential substitution to ten and providing a representative of the building trades with a seat on the committee charged with reviewing the feasibility of chemical substitution.

Certain other concessions were made to labor based on specific interests. From the onset, the AHT leaders conceded the issue on mercury emissions from coal-firing power plants, which had been a contentious issue between environmentalists and workers in the state. This agreement to focus the Alliance's efforts on other hazards worked to solidify the relationship between several leaders in the labor movement and environmental organizers in the coalition. Later, other priorities were set based on the needs of both movements. For example, only select chemicals were included in the Alliance's first legislative bill aimed at eliminating substances with viable and economically sound alternatives. Chemicals such as chlorine and others that were deeply embedded in the state's economy were omitted to keep the Alliance as labor-friendly as possible. Other substances of interest to the labor movement were deliberately included, as an environmental organizer in the Alliance recalls:

> We had this bill for safe alternatives, and labor was very much involved in the thinking in terms of which kinds of chemicals to target…to make sure that we targeted some chemicals that were specifically relevant to workers, such as cleaning products and things that workers could get excited about. At the same time, there is a set of labor concerns and dynamics about potential job loss, even though we wrote the bill to not cause job loss.

Despite the intent to not cause job loss, the precautionary principle as backed by the Alliance does have certain economic consequences that may threaten companies and workers alike. Though frame bridging creates structural connections and may attract labor leaders, the work of recruiting support from the rank and file requires a more fundamental realignment of identity and ideology brought about through identity consolidation. Using the precautionary principle as a frame bridge to the building trades' collective-action frame was not as unambiguous as it was with the other industrial unions. For the building trades, safety tends to predominate over issues strictly related to health, as accidents are a major concern on construction sites. Although construction crews routinely use and are exposed to hazardous substances such as polyvinyl chloride (PVC)

and hexavalent chromium (CrVI), the increased cost of healthier alternatives could potentially place union construction companies at a competitive disadvantage with nonunion and out-of-state companies. Bridging the structural divide between environmental organizations and this element of the labor movement required specific attention to the economic consequences of implementing the precautionary principle, which in turn has encouraged AHT's leaders to explore the potential for job generation through supporting emerging scientific fields such as "green chemistry."

Through this process of bridging and making certain concessions to the labor movement in the formation of the Alliance, important shifts to the core identity and purpose of the organization occurred. Over time, the Alliance dropped the term "precautionary principle" in exchange for "prevention." The term "precautionary principle" had by that time become a sensitive issue in American politics, and it attracted much negative attention from industry, so a strategic decision was made to focus more on the implications of the concept. This decision proved successful for the Alliance. Due in part to both the change in terminology and the Alliance's considered sensitivity to labor's concerns, many major labor organizations, including the state AFL-CIO, have become core members of the AHT and serve on the organization's labor advisory board. This board is responsible for the recruitment of new labor partners and works to increasingly refine the notion of "prevention" so that it can be communicated to a wider audience. Other labor unions have endorsed several pieces of the blue-green coalition's legislative agenda while remaining outside the AHT's membership. Defining a clear coalition collective-action frame continues to be a challenge, as the precautionary principle itself continuously undergoes refinement in its implementation in the United States. As the Alliance continues the work of recruiting additional labor members to its campaigns, the coalition frame continues to evolve and promises to ultimately succeed in becoming an enduring blue-green coalition. And this process has been greatly aided by the use of bridge brokers, those individuals who occupy multiple positions within the social structure and are ideally suited to cross class divides such as the gap between labor and environmental organizations (Rose 2000).

Activist-Professionals at Work: The Role of Bridge Brokers

Support from within the labor movement is generated largely through the work of three sets of bridge brokers. The first consists of a small group of individuals in the labor movement who, through their personal work

experiences, have encountered various occupational hazards that fundamentally altered their perception of a "safe workplace." These occupational health-and-safety activists tend to be more aware of the structural connections between workplace health and environmental health than their coworkers and are therefore better situated to cross the initial divide and work with environmental groups on common areas of interest related to health. These individual bridge brokers can move fluidly through the hierarchy of the labor movement and share their experiences at multiple levels, from the union local to regional labor councils to the state AFL, without requiring official organizational endorsement of their actions. Several labor activists appeared before the Massachusetts State Legislature in fall 2003 to lend their voices in support of the Act for a Healthy Massachusetts: Safer Alternatives to Toxic Chemicals (later renamed the Safer Alternatives Bill in 2007). The bill requires companies to evaluate and replace toxic chemicals where economically feasible. IUE-CWA member Steve Gauthier utilized his personal experiences developing a respiratory disease after working with hazardous substances that aerosolized from his workstation and were unintentionally inhaled to provide moving testimony. He testified to a committee at the state legislature:

> As workers concerned about health and safety on the job, we are supportive of this common-sense policy that would better safeguard our health and that of our families while protecting workers' rights. We are on the front lines of this battle with toxic chemicals and pay the cost of failing to promote safer alternatives with our health.

By linking occupational health activism to environmental health activism, the Safer Alternatives Bill denies corporate industrial interests their usual ally in the labor movement. The experience of becoming ill on the job transformed Gauthier's approach to politics and organizing in the workplace. He went on to form his own consulting company that offers assistance and guidance in the proper handling of metal-working fluids. Tapping into this battle that workers have had with toxic chemicals creates a united front against the corporations involved in manufacturing hazardous substances and their associations that so adamantly oppose any legislative proposal based on the precautionary principle.

Individuals acting as bridge brokers from the labor movement must be supported by their host unions, or otherwise they may be isolated or reprimanded. Although union locals can endorse the blue-green alliance and provide limited organizational resources, they are restricted to a degree

by the provisions of their bargaining agreement with their company. This binding document is the centerpiece of union locals' activities, and in most cases it restricts the local's ability to publicly protest or complain about the company's activities. Because of this arrangement, a local's institutional ties to its parent international limit its ability to act as a coalition partner, as it is legally intertwined. Actions outside an official contract may draw censure and legal penalties from the National Labor Relations Board, which, since the 1980s, has notoriously ruled against most union strikes.

Mainstream environmentalists are often unaware of the structure of the labor movement, including the role of contracts between locals and employers. Approaching a union local without recognizing the structural limitations to potential coalition activities will not result in a fruitful collaboration. The AHT relies primarily on its bridge brokers to educate union leadership about environmental issues and environmental activists about union matters such as contracts while guiding continued recruitment activities. However, these key bridge brokers must be given a uniform, consistent message that accurately defines the coalition's message. As the AHT's leaders persuaded union presidents and environmental organizers to attend joint meetings, the process of identity consolidation could be observed "naturally" occurring in participants' responses. Steve Gauthier relates his experiences in recruiting:

> In these types of meetings, I started to discuss with them some of our shared concerns. I see it differently now. I think if you get some of these groups in a position—a nonadversarial position—that conversation will begin. So there is a natural sense of how this [coalition] came about. I was part of labor. I wasn't part of the environmental groups. And I was talking to the toxic actions groups. I suffered from illnesses myself, and had grown to be interested in it. I went and started to learn about this coalition and . . . wait a minute, this has real potential.

Community-based occupational health-and-safety organizations are the second type of bridge brokers utilized by the AHT. These professional organizations were the vanguard of a burgeoning occupational health movement positioned outside the organizational structure of the mainstream labor movement (Gottlieb 1993). MassCOSH is such an organization, poised at the intersection of the labor movement and the community. Formed through the initiative of occupational health professionals interested in working outside the boundaries of the traditional labor

movement during the mid-1970s, MassCOSH, like many other COSHes across the country, was a haven for young activists and professionals interested in linking community activism with the health-and-safety needs of labor. Unfortunately, due to tenuous relations with mainstream organized labor and declining funding, many of the state COSHes have vanished or been subsumed into other occupational-health organizations. MassCOSH was able to survive by establishing several contractual relationships with labor unions and remaining competitive in receiving grant funding. Fortunately for Massachusetts, MassCOSH continues to assist organized and unorganized workplaces by providing information and technical expertise on occupational health and safety. As a key member of the Alliance for a Healthy Tomorrow, MassCOSH serves as a credible link to the labor movement, both for labor unions and for community-based labor organizations such as worker cooperatives and farmworker associations such as the New England Farm Workers' Council. They are able to use their unique position as occupational health-and-safety activists and experts to link together concerns about toxic exposures in the workplace and community environmental organizing.

Through the bridge-brokering work of MassCOSH, the Alliance has developed a supplemental project that expands on the discourse articulated through the process of frame bridging. In fall 2003 the Alliance worked with the Boston Urban Asthma Coalition (BUAC) through MassCOSH to launch a pilot program to substitute common cleaning products used in the Boston public school system with less toxic, environmentally friendly products (Senier et al. 2007). The goal of the project was framed as an effort to reduce asthma in the public schools, though its strategic implementation involved substituting cleaning products. Though the Alliance's direct involvement with this project was small, its collective-action frame guided the pilot project team. The influence of the AHT was best expressed in the Green Cleaners Project team's effort to involve custodians in the substitution project.

Whereas most policy shifts in bureaucratic institutions like a school system come from the top down, the Green Cleaners Project emphasized the role of custodians in both the application of cleaning products and in the decision regarding their usage. Leaders from MassCOSH and other partner organizations believed that if the custodians did not believe that the substitution program would improve their own health as well as that of the students, they would not be inclined to use the slightly less effective, though safer, products. Thus the project leaders opened a dialogue with the custodians' union about the need for safer substitutions and sought out their

interpretation and opinions on the program before going forward and requesting that the school department adopt the program universally.

The Green Cleaners Project is particularly telling for the importance of constructing a collective identity with a clear purpose for collaboration. On the one hand, the substitution was intended as a simple project likely to receive backing from the school officials, thus creating a precedent for the Alliance's broader project of implementing a prevention-oriented policy throughout the state for managing toxics. On the other hand, the involvement of the custodians was designed more as a discursive exercise to involve stakeholders typically excluded from these types of decisions. The Green Cleaners Project was successful at both: the custodians interviewed as part of the pilot project generally expressed an interest in reducing the burden on their health as well as the health of the students and other staff, and the project was adopted by the school district. Although exogenous political opportunity shifts acted to force the school district to adopt the program after upper-level management proceeded with the decision to purchase green products, the coalition had successfully placed its model at the center of the debate and was able to capitalize on the new political opportunity by advancing its agenda as the most appropriate one.

The third organizational resource for bridge brokering in the case of the AHT is a group of scientists and engineers located primarily at the University of Massachusetts Lowell. Researchers at the Department of Work Environment in the School of Health and Environment provide key technical assistance and research as well as legitimacy to the Alliance's goal of improving the quality of life of workers throughout Massachusetts. This concentration of health-and-safety scholars and organizers at Lowell is a fertile ground for forging fundamental links between environmental organizations working on health issues and the labor movement. The precautionary principle encompasses much of the work being conducted at the Department of Work Environment, and the Toxics Use Reduction Institute is an integral component of the proposed precaution-oriented regulatory framework.

Together these three categories of individual and organizational bridge brokers provide legitimacy within the labor movement for the leaders of the Alliance for a Healthy Tomorrow. Their commitment to addressing the health-and-safety needs of workers by reshaping the production process is demonstrated in the research projects at UMass Lowell and worker training through MassCOSH. Combined with the persuasiveness of personal experience of key individual members of the Alliance, new frame bridges continue to be built. By locating sympathetic elements of the labor

movement and gaining their support, the labor and environmental leaders of the AHT gain credibility in the broader movement—generating further opportunities for education about the precautionary principle that lead to a broader incorporation of workers into a coalition that is neither labor nor environmental but a new progressive social movement that does not distinguish between the workplace and the environment.

Promoting Prevention through Legislation

Prior to the formation of the AHT, relatively few political opportunities existed to create a major shift in how toxic substances are managed. The Alliance had to essentially create its own political opportunities. This task was accomplished by introducing several pieces of legislation simultaneously to create a political reaction and interest in refining the concept of precaution. The initial political campaigns were not designed to be successful in the sense of passing legislation. Rather, the introduction of relatively simple pieces of legislation based on the precautionary principle created the new political discussions and forums in which support for the adoption of the precautionary principle could be built. This process included the attraction of support from sympathetic political elites, generating media coverage and public interest in the principle, and finding new political allies within the labor movement.

The AHT began its first legislative campaign in the 2003–04 session of the Massachusetts State Legislature by introducing five separate bills: a major comprehensive piece of legislation was designed to promote safer alternatives to toxic chemicals and build on the Toxics Use Reduction Act; three bills were specific as to particular hazardous substances; and one bill would have shifted the burden of proof for demonstrating the safety of a product to corporations. None of the five bills passed in the 2003–04 legislative session, but several political allies were found. Among these, state senators Pamela Resor and Steven Tolman and state representatives Frank Smizik and Jay Kaufman, took the time to become familiar with the goals of the Alliance and to became official sponsors of the three bills introduced during the 2005–06 legislative session. These four politicians in particular became political allies through the Alliance's strategic targeting of citizens in their districts and engaging in an intense educational and promotional campaign that made politicians to listen to them. Once a handful of political backers supported the initial legislation, others were more easily persuaded.

During the 2005–06 legislative session, the AHT focused on three bills—all of which were revised to reflect critical lessons learned during the prior legislative session (texts in next section). In particular, the comprehensive Act for a Healthy Massachusetts was modified to present a more business-friendly regulatory structure in encouraging the substitution of safer alternatives. The original bill sponsored in the 2003–04 session included a strict fee schedule based on the usage of the ten chemicals targeted for substitution to encourage businesses to develop and implement toxics use reduction plans. In the revised legislation, these fees were structured to fund a business transitions assistance program. The program, apart from the Toxics Use Reduction Institute and the Office of Technical Assistance, would provide companies in Massachusetts financial and technical assistance in developing alternatives to current production processes that can be put in place without threatening the state's competitive edge with its neighbors. Though this is similar to the existing TURA structure, the Act for a Healthy Massachusetts would set requirements for substitution for a select number of chemicals deemed appropriate by a scientific advisory board. Thus the act contains regulatory teeth, whereas TURA is a voluntary program (with an underlying fee structure).

In 2005, the Alliance was successful in securing state funding by working with the legislature to override a veto by then-Governor Mitt Romney for a first step in promoting the safer alternative agenda, after having a similar budget item vetoed without an override in 2004. The 2006 fiscal budget included $250,000 in funding for the Toxics Use Reduction Institute to examine the feasibility of finding safer alternatives to five toxic substances: lead, formaldehyde, perchloroethylene, hexavalent chromium, and di-(2-ethylhexyl)phthalate (DEHP). Building on the momentum in the state legislature after a successful veto override, the Healthy Massachusetts Bill was recast as the Safer Alternatives Bill and resent to the legislature. In January 2008, the Safer Alternatives Bill passed the state Senate unanimously and awaits consideration by the House of Representatives.

The question of whether a prevention-oriented approach to environmental decision making stifles innovation has been framed by conservative politicians and industry lobbyists as potentially leading to loss of jobs in Massachusetts. The precautionary principle has been criticized by industry's representatives as another environmental proposal that would force additional plant closures due to competitive disadvantage. The AHT argues that switching to a precautionary framework would in fact stimulate innovation in sustainable products. Corporate industrial interests are quick to claim that further regulation in Massachusetts would cost

jobs, though the economic evidence for this is mixed. Neither side has marshaled enough evidence to claim the high ground in this debate. As Kazis and Grossman (1982) argue, the threat of job blackmail is a corporate strategy designed to keep the labor movement on the side of industry's political interests. Fearing that a similar tactic in Massachusetts would lead to pitting the member organizations of the Alliance against combined conservative business interests and the labor movement, the Alliance's leaders sought to gain the support and formal endorsement of organized labor before it could be mobilized in opposition. This process of formalizing the link between labor and the environment in the context of the precautionary principle has been challenging, involving multiple years of negotiation between individual union locals, central labor councils, and the state AFL-CIO.

In order for labor unions in the building trades and for the state AFL-CIO to become members of the AHT, certain concessions were made. The Alliance agreed to scale back slightly its political agenda and focus on a set number of toxic substances agreed on by all parties. To ensure that labor interests were equally represented in the new regulatory framework advanced by the AHT, two seats—one to labor generally and the other to the building trades—on the advisory board that would govern the study of and implementation of safer alternatives would be guaranteed to labor representatives. In addition, the coalition builders agreed to include language in the core piece of legislation, the Act for a Safer Massachusetts, on a "just transition"—the guarantee that any workers who did lose their job because of precautionary regulation would be give a just transition to a job of equal pay and status. To fund this, the legislation includes a series of fees that would sponsor an account used to retrain workers in new employment.

In June 2007 the Safer Alternatives Bill was debated in the Massachusetts State Senate. Strong support from both labor and environmental organizations in the hearings demonstrated a broad commitment by a wide variety of interest groups to changing the way hazardous substances were managed in the state. Despite ongoing debates over the economic costs of adopting a substitution-oriented policy on hazardous chemicals, several key politicians recognized the upsurge of public support and prioritized the Safer Alternatives Bill, leading to its eventually passage in the state senate in early 2008. By altering their collective-action frame to target the strategic goals of reducing mercury and asthma-producing cleaning products, the coalition leaders have actively shaped new political opportunities through setting precedents, acquiring political allies, and generating public interest in implementing the principle.

Moving toward Clean Technology

An additional direction the AHT is choosing to pursue is the development of sound evidence that precaution actually creates new employment opportunities. While the coalition forged between organized labor and the environmental movement in Massachusetts is a significant step toward the implementation of a stricter chemicals policy, the Alliance wants to supplement its legislative campaigns with economic research demonstrating the potential for growth in clean technology. The notion that there is a clean technology sector in Massachusetts is based on the confluence of a number of new technologies that represent major leaps forward in developing sustainable products with less environmental impact. Recent examples include solar photovoltaics and wind turbines for producing energy, hybrid automobiles, biological water purification systems, and investing in "green chemistry" at the state level. Since these technologies are relatively new, their market potential is not yet fully understood. Analysis of the lucrative European market for high-end chemicals, where roughly 30 percent of the chemicals manufactured in Massachusetts are exported, suggests that clean technology is a potentially profitable investment, both in terms of jobs and capital returns. If Massachusetts were to become a leader in the production of green chemicals, it would have a competitive edge in a market that is currently dominated by European companies. The environmental and labor activists in the Alliance seeking to promote an alternative regulatory paradigm that would encourage investment in such sustainable technologies are therefore interested in understanding the potential effects on the state's economy. This is an interesting shift in the coalition's frame, as it represents a proactive stance toward explaining why the precautionary principle is good for Massachusetts. Whereas the principle is often seen and articulated as a reaction to the risk of harm, the Alliance is working on developing a campaign based on how it would help industry stay competitive in the global market.

Some activists believe that Massachusetts is particularly well suited to becoming a leader in clean production technologies. Existing programs in green chemistry, for example, in the University of Massachusetts system places the state at the forefront of development in sustainable chemical production. Furthermore, the Alliance's relationship with the Lowell Center for Sustainable Production and a number of activist scientists at UMass Lowell suggests that the work of coalition building undertaken by scientists and environmental activists could potentially lead to a political victory in obtaining state funding to sponsor further investment in clean tech.

Woodhouse and Breyman (2005), both working in close proximity to green chemistry, argue that environmentally responsible technological innovation can be driven by social movement actors but that success is more likely when coalitions involve representation from the scientists working directly with new technologies. This argument can be extended to the workers and advanced industries that would be utilizing the new technologies as well.

The AHT has worked to obtain private funding from philanthropic organizations to sponsor research into the economic benefits of investing in environmentally responsible technological innovation. Possessing the evidence demonstrating that investing in environmentally friendly technology will lead to the creation of new jobs in Massachusetts is not necessary for the recruitment of new labor organizations into the Alliance, but it will give it an advantage in attracting additional support—which is one of the primary goals of this new project. At meetings with political lobbyists for several unions regarding the status of the AHT's legislation, the issue of job loss or creation is frequently raised. Although the leaders of the Alliance enthusiastically argue that adopting a prevention-oriented environmental framework would create a net growth in jobs, many of the labor representatives remain slightly skeptical as to the veracity of the claims. Thus the rhetoric of job blackmail remains a concern for several major unions in Massachusetts despite the official endorsement by the state AFL-CIO. Several of the Alliance's major union partners fear that although investing in clean technology might create jobs, the jobs that are being eliminated in favor of the cleaner jobs will have a negative impact on traditional union jobs, especially in the energy sector.

Clean energy has proven to be a much more divisive issue in Massachusetts than previously expected and has created political opportunities resulting in a strange configuration of allies. Clean energy is proposed for Massachusetts in the form of a development of 130 wind turbines five miles off the shores of Cape Cod. The project is estimated to provide roughly three-quarters of the electricity currently used by Cape Cod and create between six hundred and one thousand new jobs. Although the AHT is directly involved in the political debates surrounding the Cape Wind project, several of the member environmental organizations and labor unions are on opposing sides. Several environmental groups located on the Cape have come out in opposition to the sustainable energy project, arguing that it will have a negative aesthetic impact on the Cape. Despite the importance of thinking in the long term about the problem of climate change in a way that promotes sustainable economic opportunities, many environmental

organizations are captured by the fear of aesthetic contamination of the "natural" environment. On the other side of the debate, many labor unions whose members would be employed to build and operate the turbines are very much in support of the project. So although the Alliance supports the Cape Wind project in principle as a clean and sustainable alternative to fossil fuels, the politics of its installation brings up schisms in the labor-environmental relationships on which the Alliance is constructed—keeping the Alliance from taking sides, despite the centrality of the issue of finding safer alternatives to hazardous substances.

In addition to solar plants and wind turbines, the building trades are likely to benefit from another investment in clean technology, water infrastructure. As earlier, the building trades unions are often opponents of environmental legislation that prevents development of new construction projects or regulation that bans a product. The building trades represent only a small portion of the overall construction workforce and are therefore suspicious of any law that would make their workers less competitive in the marketplace. For example, if PVC, including PVC pipes, were to be banned in Massachusetts, building costs (arguably) would increase due to the substitution of a more costly alternative (high-density polyethylene) and a reduction in the number of construction projects in the state (Ackerman and Massey 2003). Other complaints from the building trades focus on the culture of reckless violations in nonunion construction sites, in which it is argued that if union workplaces adopted safer working environments to protect themselves and the environment, other nonunion companies would simply disregard those standards due to the lack of enforcement. Thus concerns about environmental regulation loom large for the building trades, and they are outspoken opponents of most legislative proposals.

Toward a Healthy Tomorrow

The Alliance for a Healthy Tomorrow is an exemplarily blue-green coalition. In the early stages of formation, the coalition was especially successful in recruiting from a wide diversity of organizations and promoting a health-based framework. Since the AHT began as an alliance of environmentalists, public health organizations, and progressive scientists, the recruitment of potential labor organizations required it to reconfigure its coalition collective-action frame, as well as its organizational frame. The identity-consolidation strategy chosen by the Alliance's leaders and

coalition builders was the technique of frame bridging, whereby ideologically congruent but structurally divided existing frames are linked together under a single coalition frame. In the case of the AHT, frames based in occupational and environmental health were utilized to create the fusion of interests between labor and environmental organizations. This frame alignment process has been generally successful, but the coalition's frame constructed around the promotion of the precautionary principle remains somewhat unclear. Since the precautionary principle itself is an evolving concept, the prognostic element of the coalition's frame—outlining what action is to be taken—continues to remain difficult to communicate. Thus the Alliance's recruitment efforts are limited by the coalition leaders' inability to articulate a clear vision for the future.

The AHT's success in recruiting labor organizations hinges to a great extent on its bridge brokers. These individuals, acting largely on their own time, facilitate the network building that leads to participation in the Alliance by crossing traditional movement divides. Without these bridge brokers, the Alliance would likely be less successful in its efforts to interest potential labor participants. In addition to being dependent on its bridge brokers, the Alliance also operates in a fairly limited political environment where their main objective, the precautionary principle, is largely a foreign concept. The precautionary principle, or a preventative approach as the Alliance has reframed the concept, has been used to facilitate recruitment and create a new legislative agenda for reforming the management of hazardous substances. Faced with a lack of specific political opportunities for promoting precaution, the AHT has generated its own through several strategic shifts: by recasting the precautionary principle as logical evolution in chemical policy and by introducing a series of legislative proposals that are intended to create these necessary political opportunities. Only in the second and third iterations of these legislative proposals has the Alliance begun the true process of campaigning to promote their passage. This strategy has both created general awareness of the relatively foreign concept of the precautionary principle and created the shifts in political opportunities that provide the necessary conditions for building an enduring blue-green coalition.

The Alliance for a Healthy Tomorrow has successfully modified the concept of the precautionary principle to further its political agenda by expanding on the notion of preventing harm by eliminating potentially hazardous substances before they enter the environment. This process of substituting safer alternatives for toxic substances occurs at the point of production, where workers are directly affected by changes in processes.

To avert a potential conflict between workers and environmentalists, the Alliance has actively sought to link its collective identity based on preventing harm to the frame of occupational safety and health. It has been able to successfully accomplish this process of frame bridging by relying on bridge brokers, particularly the two state COSHes and the advocacy scientists at UMass Lowell, to connect the labor and environmental communities.

Though the Alliance no longer uses the term "precautionary principle," it is at the forefront of a major paradigmatic shift in the environmental movement. Safer substitution and clean technology represent the next logical steps in the evolution of environmental regulation after pollution prevention and toxics use reduction. Since Massachusetts is a leader in toxics reduction, it is an ideal environment in which to pursue the horizon of environmental policy, in this case the promotion of environmentally sound technological innovation in a broad range of economic sectors. From clean energy to custodial cleaning products, the AHT, working with organized labor, is directly and indirectly pushing for change in how environmental and public health decisions are made.

3

Fighting for the Right to Know

The lack of information on potential toxic exposures limits the ability of labor and environmental organizations to campaign for stricter management of hazardous substances and better regulatory enforcement. Many activists, both workers and environmentalists alike, distrust official government and industry accounts of potential health risks. Because they lack specific information, regulators often claim an inability to govern. Industries, almost as a default reaction, dispute claims of occupational exposures and community claims of toxic poisoning. It was not until 1984, in the aftermath of the tragic accident in Bhopal, India, in which an accidental release of methyl isocyanate is estimated to have killed between three thousand and twenty thousand residents and left many thousands more injured, that environmental and community activists in the United States pressured the federal government to pass the Emergency Planning and Community Right-to-Know Act (EPCRA)—requiring industrial firms to estimate and report their release of roughly three hundred potentially hazardous substances. EPCRA does not limit releases and only requires that releases be estimated (i.e., no actual monitoring or testing of releases from production processes is required), and release data are verified in only about 1.5–3 percent of cases (Environmental Protection Agency 2001). Since the passage of EPCRA, the number of communities experiencing ill-health effects of toxic releases continues to be alarming.

The fight for information on the use, storage, and release of toxic substances in and from workplaces is often referred to as the struggle for the right to know. The right to know was a product of growing frustration with the seemingly constant discovery of toxic substances hidden throughout the United States. The shocking 1978 discovery of 21,000 tons of buried chemical waste underneath the suburban working-class neighborhood of Love Canal, New York, and the stunning realization that such a situation could occur anywhere mobilized community and environmental activists to begin questioning the safety of their own neighborhoods (Brown 2007; Gottlieb 1993; Levine 1982). Community residents were not alone in this struggle to learn more about what hazards they could be exposed to, however. Workers often faced similar perils, though in a more insidious form. Often forced to work with chemicals with trade names or simple designations, workers had an uphill battle against industry to learn what substances they were actually being exposed to and what the health risks associated with those exposures might be (Leopold 2007). The frustration of occupational safety-and-health activists in trying to obtain information on product names and potential risks closely mirrored that faced by environmental activists. Given the similarities between the two situations, collaboration on the right to know produced a formidable alliance between the two movements—especially in New Jersey, where the dense population and the close proximity of industry to that population produced a powerful blend of anti-toxics and pro-union activism that redefined the relationship between blues and greens.

New Jersey's statewide blue-green alliance, the Work Environment Council (WEC), has accomplished perhaps more than any other partnership between blues and greens. The WEC was formed in 1986 to fight for and defend the right to know about toxic substances that workers and community members might be exposed to. The right to access information regarding what substances a worker on the job might be exposed to and community members might later come into contact with has proved to be a powerful motivation for collaboration between blues and greens in New Jersey. In this chapter, I examine how the Work Environment Council grew from a small alliance of community activists, workers, and environmentalists to a statewide coalition consisting of members from a wide array of interest groups in New Jersey. I trace the growth of the right-to-know campaign to a much more sophisticated discourse on the right to a safe and healthy environment that does not distinguish between workers and environmentalists.

Building the Foundation of the Coalition on the Right to Know

The history of the Work Environment Council (WEC) began not in New Jersey but across the Delaware River in Philadelphia. During the late 1970s, labor activists were joined by community activists in a struggle to promote citywide reforms to address the fears of residents that they were being poisoned by the area's chemical and refining industries. The Philadelphia Project for Occupational Safety and Health (PhilaPOSH), one of the first and largest Committees on Occupational Safety and Health, had been working with union members to get the city's endorsement to improve hazardous working conditions. In the early 1980s, working in conjunction with a local anti-toxics group, PhilaPOSH introduced one of the first pieces of community right-to-know legislation in the Philadelphia City Council.

Supported by environmentalists and union members alike, the right-to-know bill attracted extensive media coverage and widespread public support. Industry's reaction was predictably defensive, as it had opposed many other anti-toxics campaigns by this time. However, the level of activism generated by PhilaPOSH and its union and environmental allies presented a severe legitimation crisis to the city government and forced industry to agree to a compromise. The Philadelphia right-to-know law, the first municipal law of its kind, was passed in January 1981. According to a lawyer representing the alliance of unions, health-and-safety professionals, and community environmentalists, "the primary importance of the Philadelphia law is that it became a paradigm for an issue and a way of organizing" (Ochsner 1992, 178).

In New Jersey this sentiment holds true for a different and much broader and diverse set of actors. The right to know has became a public paradigm for organizing environmental and labor groups into a single coalition that is capable of accomplishing much more than individual organizations can on their own. Building on the lessons learned from the campaign in Philadelphia, anti-toxics activists quickly focused on creating similar laws in New Jersey. Rick Engler, an organizer from PhilaPOSH, and other technical advisors and organizers lent their expertise and organizing skills to the right-to-know campaign that began in early 1982. The fight to enact the strictest right-to-know law in the country took nearly two years and involved many political battles with industry lobbyists and negotiations with reticent politicians.

The perception of an imperative need to enact a public right-to-know law spilled over into New Jersey's labor and environmental activist communities. The original goal in New Jersey was to create a similar right-to-know

policy as in Philadelphia that focused on a community's right to information. Leaders from the COSH groups and local environmental leaders realized that the environmental community could not generate enough support among state politicians by themselves. Rather than focus specifically on a piece of community right-to-know legislation, leaders in the fledging movement decided to push for a bill that would include worker *and* community rights to access health-and-safety information for hazardous substances. Building on the COSH movement's emphasis on worker health and safety, activists approached union locals that were experienced with the threat from hazardous substances on the job about working with community and environmental organizations to pass a right-to-know law.

Though Philadelphia had passed a similar piece of legislation in the previous year, several elected officials in New Jersey, together with representatives from industry, issued warnings through the media about the negative impact such a bill would have on the state economy. Industry representatives made the case that massive job losses would occur if they were forced to reveal industry secrets to what they viewed as nosy environmentalists, and they threatened to flee the state if such a bill was passed. By using this type of environmental job blackmail, industry hoped to prevent the labor movement from siding with environmentalists and complicated the task of building solidarity between blues and greens. Workers were told that they could essentially choose between information on substances that management assured them were safe anyway or their jobs.

Unlike previous unsuccessful attempts to overcome job blackmail, leaders in the fledging coalition framed the issue of the right to know as a basic human right. The coalition frame built by these activists emphasized the toll on individual lives and families from exposure to hazardous substances in the workplace. The campaign built on the personal stories of workers who had lost friends on the job after years of their being poisoned by chemicals for which they were told only the trade names. At the heart of the coalition's framing of the issue was a worker's right to know what chemicals were being used and stored at their place of employment. Surrounding this central issue was the idea that chemicals and substances stored and used within a facility were the sources of community and environment contamination—a series of toxic circles emanating outward from manufacturing facilities. Rather than identifying as environmentalists and trade unionists, members of the new group, called at the time the New Jersey Right to Know Coalition, defined themselves first as victims of unsympathetic corporate actors interested only in profit. The united front presented by the coalition caught industry representatives off guard.

The coalition backing the right-to-know campaign consisted primarily of three large umbrella-type organizations. On the environmental side, the New Jersey Environmental Lobby brought many state environmental organizations into the coalition. Their legal counsel and lobbyist had also served on the coordinating committee of the Philadelphia right-to-know campaign and brought valuable experience in conducting a successful campaign. PhilaPOSH also participated in the campaign, bringing in labor unions from southern New Jersey. Almost a year into the legislative campaign, New Jersey Citizen Action added its support. These three coalition groups were able to draw on three important bases of support: environmentalists, labor unions, and communities. By the time the statewide legislation was passed, the New Jersey Right to Know Coalition comprised sixty-one member organizations.

Environmentalists were attracted to several elements of the proposed right-to-know legislation. For anti-toxics activists who had been engaged in a struggle over the aerial application of pesticides, access to information about chemicals of concern was important. According to one environmental activist:

> To us, the sexiest part of the law was these hazardous substance fact sheets that would be produced that would be written in everyday language. They would be developed for common hazardous chemicals that would be in the workplace. But these very same hazardous substances are also in household products, in pesticides. And we thought, once and for all we're going to have a fact sheet for all the pesticides that we're concerned about.

Creating the link between hazardous chemicals and substances produced and stored in the workplace and potential exposures in community settings was crucial to building the diverse coalition. Jim Moran, a labor organizer with PhilaPOSH who was involved in both the Philadelphia and New Jersey right-to-know campaigns said:

> That the company could just say, "You're working with Super Wizzy Clean Number 5, and I don't care that your rash is all over your body and you can't breathe when you work with it. We don't have to tell you what it really is." And essentially that was the deal. And people were incensed at that: "Say, you mean to tell me that we don't have that right, right now at this late of a date" and so forth and so on. So it was easy to rile folks up. It was a real volatile issue.

Unlike later right-to-know campaigns in Massachusetts and California, the New Jersey campaign focused explicitly on building relationships between labor and environmental activists through educational workshops and training exercises designed to break down stereotypes and divisions between the two constituencies.

The New Jersey Environmental Federation, which sees itself as working on the "brown side of the environment," included issues related to the urban environment such as lead poisoning, brownfields remediation, and Superfund sites in their repertoire of contention. Leaders in the Environmental Federation made the connection between workplace and community exposures quickly. Due in part to past work with the national office of Clean Water Action, of which the New Jersey Environmental Federation is a state affiliate, activists from this environmental organization had some experience in working with labor unions. Many of the issues they had been attempting to address alone, such as producing fact sheets on toxic substances that were accessible to the average layperson, resonated with the coalition's aim of creating a statewide right to know. The focus on toxics was a starting point for entering into a dialogue with workers about their need for information in the workplace. As one environmental leader put it, "There's always been more willingness because we're talking about toxics and we're talking about workers being the first line of defense. You know, that stuff is so obvious." Even groups with less focus on toxics at that time, such as the Sierra Club, which has traditionally been a land-use and conservationist group, participated in the coalition. By working together to pursue a common goal, traditional stereotypes about the perceptions and intentions of labor and environmental groups toward each other could be broken down. The same environmental leader said:

> So I saw workers and community people or environmental people who had never sat in the same room before, never had a sense of who the other side was. And it was interesting in the end. They were like, "You don't really want to shut us down?" and "Oh, you really just want it to be safer?"…But, you know, somebody who is a straight environmentalist and they don't have any interaction with workers, they don't think about this stuff.

Even though the Right to Know Coalition in New Jersey included several key leaders fresh from the success of the Philadelphia campaign, these actors remained "largely behind the scenes while encouraging elected leaders within the coalition to take on public responsibilities" (Ochsner 1992,

204). This focus on leadership development in the New Jersey right-to-know campaign is carried through in the history of its successor, the New Jersey Work Environment Council. The emphasis on developing leadership skills through training and campaign experience builds solidarity, not just among the leadership of the various organizations participating in the coalition, but also among the members. This intentional emphasis on group participation distinguishes the WEC from many top-down efforts to link unions and environmentalists.

This solidarity was tested by an industry-backed attempt to split off a potential fourth coalition member, the firefighters unions. As the first responders to fires and other emergencies at facilities containing hazardous chemicals, firefighters are often requested to enter a dangerous situation without complete information as to what materials might be contained inside. There is a need for information for emergency response teams that would be made public if right-to-know legislation is passed. As in other states, industry representatives and lobbyists offered an alternative right-to-know bill that would provide information on a limited basis to firefighters and other emergency services but not to the general public. In the case of New Jersey, the major firefighters union rejected this offer and remained in solidarity with the Right to Know Coalition. The firefighters held ranks with the Right to Know Coalition due in part to the strength of the discursive quality of the coalition frame. According to coalition leaders at that time, they were able to convince the union officials that the bill possessed enough political backing that it would inevitably be passed. The firefighters were presented with the option of either becoming part of the discourse on a community-based right to know or working on their own to challenge the political power of industry. By opening up this public space for a dialogue about the public's right to know, the coalition leaders successfully captured the issue and placed their agenda at the center of the debate. By developing solidarity with the firefighters, the coalition was able to prevent the fledgling movement from fragmenting.

Solidarity within the ranks of labor was also demonstrated by the unusual appearance of the New Jersey AFL-CIO at an official hearing in support of a bill backed by the state's Industrial Union Council. In fact, New Jersey was the last state where the AFL officially merged with the CIO, though most labor representatives would claim that this "merger never wholly 'took'" (Ochsner 2002, 184). Whereas the state AFL-CIO is largely dominated by the building trades and crafts unions, which tend to be on the more conservative side of the labor movement, the Industrial Union Council represents many unions involved in chemical production,

transportation, and storage, and has pursued a more progressive agenda. The solidarity between the two state union coalitions represented a significant political coup for the right-to-know movement. If the state AFL-CIO had lent its support to industry interests, it might have shifted the balance of power between business and right-to-know lobbyists. The AFL-CIO's support of the right-to-know law may have been because the provisions contained in the legislation did not directly threaten the jobs of union members, thus relieving the leadership of the AFL-CIO of the "job blackmail" threat so often used by corporate interests. The success of the coalition hinges to a great extent on the fact that the right to know does not incite the jobs versus the environment question as much as other types of pro-environment policy do. By framing the coalition's purpose in terms of the basic right to access information necessary to make informed market decisions, the leaders of the Right to Know Coalition created a solid common ground on which to base further collaborative action.

At the same hearing attended by leaders of the AFL-CIO and the Industrial Union Council, the dramatic flair of the right-to-know campaign was powerfully demonstrated. In one of the more moving moments, United Auto Workers representative Bill Kane "placed a small red tank on the speaker's table and opened a valve, [allowing] a colorless and odorless gas to leak into the room. As the gas seeped into the room, one senator shouted, "Mr. Kane, I have a right to know what this is!" Kane responded with the token reassurance of an employer, "Don't worry. We've been using this for years and no one has died yet" (Ochsner 1992, 185). Similar testimony from occupational health-and-safety professionals focused on the lack of basic information about commonly used substances in the workplace. Firefighters and other emergency workers made the connection between hazards in the workplace and the community exceptionally clear. As the first to arrive on the scene of factory fires, firefighters have faced extreme unknowns about what they might be exposed to if they enter a building housing toxic chemicals. Highlighting the unknown health effects of spills, explosions, and fires, the emergency responders argued that the information obtained through the proposed right-to-know legislation would help protect the health and safety of both community members and first responders. Combined with the graphic representation of worker exposures and ignorance of safety information, the profound testimonies given by environmentalists, community members, and union representatives reflected the very personal nature that the right-to-know campaign was built around. The resistance on the part of industry to providing basic information about the substances generated a cohesive front of diverse

interest groups united around the shared identity of victims of a "toxic ignorance" imposed by corporate interests and management.

The strength of the Right to Know Coalition helped maintain the attention of the media and the public to the proposed legislation during a year of political maneuvering and negotiations until the bill was finally passed in August 1983. A number of highly publicized environmental crises, including the discovery of dioxin contamination in a former manufacturing site in Newark and a chemical fire in Edison, helped increase support for the right-to-know campaign.

All coalition actions were carefully orchestrated and decided on as a collective unit. Divisions based on organizational affiliations seem to have been almost nonexistent (Ochsner 1992). In addition to popular support, the right-to-know bill also enjoyed the support of Democratic leadership in the state assembly, while the senate was pressured through hundreds of phone calls and letters. Faced with the upcoming 1985 gubernatorial race, potentially against New Jersey congressman James Florio who had barely lost in 1981 and was a strong ally of the environmental movement and author of the federal Superfund legislation, Governor Thomas Kean ultimately decided to support the legislation. The political climate surrounding the right-to-know campaign was very advantageous for the movement, though this explains more about the success of the initiative than about its origins. New Jersey, with its increased public attention to the large risk of chemical disasters and exposure, dense environmental and labor communities, and Democratic leadership of the state legislature, was the ideal political environment to enact the strictest right-to-know law in the country.

The passage of the New Jersey Worker and Community Right to Know Act was a major victory for the coalition made up of labor, environmental, and community organizations. Besides accomplishing sweeping changes in industry chemical practices, the campaign brought together the progressive social elements in the state. According to one environmental organizer:

> Getting the right-to-know law passed was a very good organizing experience. It was a very good coalition building experience. We saw the common ground of workers in the communities, workers that are exposed to the chemicals right there in the workplace. But the fact [is] that these chemicals also disperse out into the community through emissions or being made into products that are being consumed by people. We also realized that the government wasn't going to be the ones to protect us. We had to fight for these rights.

This statement identifies key elements contributing to the longevity of the Right to Know Coalition. First, by focusing on the right to information about both community and worker health hazards, a shared collective identity of interests was formed. Second, portraying both government and business as antagonists helped bring polarized elements of the labor and environmental movements together in a single organizational framework. The success of the right-to-know campaign helped to solidify the relationships and networks forged between labor and environmental activists. If the coalition's initial campaign had been a failure, the quality of the relationship between labor and environmental groups in New Jersey would most likely be very different today. Much of the success in maintaining the relationships is due to the dedication of the coalition leaders, particularly Rick Engler. His leadership style made him a key bridge broker in bringing new organizations into the coalition. The charismatic quality of his coalition leadership and history with the COSH movement made him an ideal behind-the-scenes player in the development of the coalition. By promoting collaboration between diverse groups around a "sexy" issue like the right to know, Engler and the other leaders of the coalition created one of the strongest statewide labor-environmental alliances in the country.

Returning to the formation of the coalition identity, the successful right-to-know campaign turned on the ability of the coalition leaders to develop a coalition identity that would resonate with the individual identities of environmental, labor, and community activists. By focusing on the ubiquitous nature of exposure to toxics and centering on gaining access to information, the coalition leaders helped construct a collective identity that could not be divided by something as simple as a chain-link fence. Coalition builders focused on the peril shared by workers and environmentally minded community members. This consolidated identity allowed a united front to be presented to state officials and elected representatives, one that corporate interests had not previously faced before.

In addition to its political success and legitimacy within the labor and environmental movements, the Right to Know Coalition also established itself as a clearinghouse for information on how to interpret the information provided for in the new legislation. This issue became an important task, as much of the information released to the general public after the passage of the New Jersey Worker and Community Right to Know Act in 1983 contained scientific names and terms for substances that most environmentalists and workers were unfamiliar with—though they might be very familiar with the substance itself. Thus the coalition dedicated much of its organizational resources to the translation of this information into

accessible data that community groups and workers could make practical use of.

The coalition possessed a slightly different relationship to its organizational constituents than most other blue-green coalitions. Whereas most coalitions operate off a narrow budget funded by membership dues, the WEC draws on multiple service relationships both with member organizations and nonmember unions. Though most of these service relationships exist with labor unions that lack the resources on their own to fund health-and-safety committees in the workplace, the finances generated from them allow the WEC to be very active and to fund specialty staff positions, including a person who works solely on environmental justice issues. Being able to fund these niche positions greatly aids the coalition's dedication to member education.

Transitioning to the Right to Act

Though knowledge is the first requirement in a campaign to limit or eliminate sources of workplace and public health hazards, the right-to-know legislation does not guarantee a reduction of the hazards faced by workers and community members. Workers have the right to not work with a particular substance if information regarding its content and health risks is *not* made available within a specific period. However, they are not granted the right to accompany site inspections or participate in the completion of the survey of chemical use and storage that is used to generate the right-to-know information. While implementation of new legislation or a statute requires time and bureaucratic effort, the sweeping nature of New Jersey's right-to-know law required several years of preparation before the first bit of information could be collected. Enforcement of the requirements is also difficult, and, on their own, individual environmental, community, or labor groups generally lack the resources to challenge an uncooperative employer or industrial neighbor.

After a couple of years of focusing on the implementation of the right-to-know legislation, the coalition of labor, environmental, and community groups reconvened to address the limitations to worker and community empowerment in the existing state regulatory framework. Re-forming themselves as the New Jersey Right to Know and Act Coalition in 1986, the coalition sought to expand on its remarkable victory by working to create and promote a new bill that would empower workers and community members to inspect workplaces, negotiate preventive measures, and

take other forms of action utilizing the new right to information (Engler 1992). The legislation drafted and sponsored by the new coalition ignited a controversy and countermovement at a level completely unseen during the right-to-know campaign. The threat of granting workers and community members the right to act on information obtained through right-to-know regulations galvanized the fragmented business and industry environment in New Jersey, giving various industries the impetus to form their own coalition to fight the New Jersey Right to Know and Act Coalition. Thus the threat of another success created an anti-environmental and worker countermovement composed of industries and their associations from not just New Jersey but nationally. The core argument espoused by the countermovement focused on the violation of private property rights and the right of companies to conduct their business unfettered by nosy citizens like the right-to-act coalition was proposing.

The identity holding the coalition members together continued to resonate, while additional groups continued to be recruited into the coalition to defend and further implement the right-to-know legislation. Based on the right-to-know campaign's success and support from the activist community in New Jersey, leaders of the blue-green coalition sought to add a new element to their campaign. The transition from fighting for the right to know to the right to act made logical sense to movement participants, and constructing the specific coalition frame required little work internally. Coalition members eagerly supported the expansion of their earlier success, and the new frame became the new rallying point. Despite the relative ease in building the new identity atop the right-to-know frame, coalition actors did realize that selling the right to act to state representatives would be a greater challenge than getting support for the right to know.

After the New Jersey Right to Know Coalition's important right-to-know victory, several new strategies in the environmental movement were developed and influenced the character of the new campaign in New Jersey. In the mid-1980s, groups like the National Toxics Coalition began promoting "good-neighbor agreements" as a means of securing cooperative commitments from neighboring industrial facilities. Several good-neighbor agreements were established in New Jersey and nearby areas, providing a model for statewide legislation that would provide all communities that had industrial neighbors the right to have representation in investigating occupational and environmental safety violations. In addition to these advancements in community environmental organizing, the right-to-know campaign also built on the success of several union drives to establish joint health-and-safety committees to participate in

the management of hazardous substances within the workplace (Engler 1992, 2). These significant advances in accessing what were traditionally management-only decision-making processes regarding the treatment of hazardous substances within and outside industrial facilities helped shape the ultimate form the proposed right-to-act legislation would take: the Hazard Elimination through Local Participation Act (HELP).

The Hazard Elimination through Local Participation Act utilized two participatory structures to implement the right to act for New Jersey workers and communities. First, the HELP bill would have increased the general public's ability to participate in facility inspections through local emergency-planning committees, which are required at the municipal and county level by federal (SARA Title III) and state (Executive Order 161) law. The HELP bill also would have required that volunteers from the community be allowed to participate alongside official representatives of the planning committee, granting the general public more participatory rights in inspection and rule making of facilities using hazardous substances. Second, the HELP bill would have increased worker participation in hazard inspection and management within those facilities. HELP would require hazard-prevention committees to be established in certain facilities, based on large enough facility size and whether a facility had been assigned an industrial sector code identifying it as a workplace where exposures to hazardous substances would be likely to occur. These committees would have been similar in form to joint labor-management health-and-safety committees and would be entitled to inspect the facility yearly and after accidents, be informed of health testing or training, and participate in governmental environmental and safety inspections (New Jersey Assembly No. 2832, 1991).

The first draft of the proposed HELP legislation began to circulate among member organizations of the Right to Know and Act Coalition in mid-1988, following a conference attended by over 150 organizations. In preparation for the two-year legislative session beginning in 1990, the coalition held a series of training workshops for workers and community members across the state to provide information and generate interest in fighting for the right to act. These training sessions used the information obtained through right-to-know laws to reveal what were often stunning facts about the millions of pounds of toxic substances released in the state. In focusing on the number of deaths in the state due to occupational illnesses and the lack of state and federal safety inspectors to protect them, the worker training sessions were intended to galvanize workers into challenging management based on their right to a healthy and safe workplace.

Emboldened by the election of Democrat Jim Florio to the governorship of New Jersey in November 1989, coalition leaders anticipated a victory for the HELP legislation. Florio, prior to becoming governor, served as one of New Jersey's congressional representatives and sponsored the federal Community Right-to-Know law (SARA Title III) in 1986. This presence of an elite political ally seemingly opened an entire new set of political opportunities for the coalition. Other events captured the public's attention, further suggesting that the political timing was right to conduct the right-to-act campaign.

In September 1989 the Coastal Eagle Point Oil Company refinery in Westville was fined $761,000 by the New Jersey State Department of Environmental Protection for violating their water permits. According to EPA records, Coastal admitted to dumping approximately 202,300 pounds of toxic substances into the Delaware River and approximately 222,172 pounds into the air in 1987 alone. Seizing on the substantial fine levied in September, coalition activists gathered outside the facility in protest, demanding that the company allow a community inspection inside plant gates. The coalition delivered a petition signed by five hundred area residents stating:

> We, the undersigned, are concerned about the health and environmental effects of toxic emissions from your Westville facility. We urge management to allow representatives of the NJ Right to Know & Act Coalition and its members in your area to conduct a "community inspection" of your facility. We further request that Coastal management meet with Coalition representatives to discuss their recommendations for reducing health and environmental hazards and for improving safety for workers and residents (Engler 1992).

The management of the refinery fiercely refused the community inspection, claiming that the inspections would "duplicate existing programs, would be time-consuming and disruptive, and would serve the special interests of those groups instead of the public interest" (Graham and Muldoon 1989). The protest and petition, though unsuccessful in gaining a community inspection, did generate public dialogue about the need for public oversight regarding the use and management of hazardous substances in New Jersey's chemical industries.

The issues raised outside the refinery's gates in November were highlighted in a report released by the Mt. Sinai School of Medicine in New York City in December 1989, which reported that New Jersey was ill-prepared

and ill-equipped to deal with the high rates of occupational disease. The study found that roughly two to three thousand deaths in New Jersey resulted annually from occupational disease and that "impermissibly high levels of toxic and carcinogenic" substances resulted in roughly seven to fifteen thousand new cases of occupational disease annually. The Mt. Sinai report made several recommendations that, without specifically referencing the HELP legislation, clearly supported such a bill:

> Enactment of legislation to increase worker participation in assuring safe and healthy workplaces including joint management-labor safety committees, with equal representation from both parties.
>
> The committees would be empowered to inspect worksites on regular a basis, order temporary cessation of unsafe operations, formulate and implement a comprehensive plan to address hazards, investigate failures in ongoing operations and practices that pose threats to health and safety, approve educational industrial hygiene and medical monitoring plans and personnel and review safety impact of planned changes in the workplace. (Fahs 1989)

Supporters of the HELP legislation were quoted in the media coverage of the report as claiming that the findings provided compelling evidence of the need for HELP in New Jersey.

In late December 1989, the HELP legislation was officially introduced in the New Jersey State Legislature. Almost immediately, industry interests through the countermovement in the state began their campaign to defeat the HELP bill. Spearheaded by groups such as the New Jersey Business and Industry Association and the Chemical Industry Council, industry representatives identified HELP as the number one legislative issue to be defeated. The Business and Industry Association's newsletter broadcast this message to its members rather bluntly: "We have one issue that dwarfs all other in comparison, and that is the Hazard Elimination through Local Participation Act.... In its current form, it would be a nightmare for New Jersey employers." Recognizing their defeat back in 1983 with the passage of the Right to Know Act, industry quickly developed a united front to attack the credibility of the blue-green coalition. One reporter captured the rhetoric of these attacks against the supporters of HELP at one of the first public hearings: "Representatives of some of the state's largest industries opposed the act last night, conjuring up images during testimony of uninformed gadflies passing through factory gates and running amok" (Engler 1992). Industry representatives also made use of more traditional

arguments, claiming that such regulations would decrease the competitiveness of New Jersey's core industries in the global market—forcing companies to cut jobs in the state.

Coalition leaders anticipated this line of argument and crafted innovative elements in the legislation that would build on existing regulatory frameworks and foster cooperation between business and community interests. In response to the counterframing efforts of the industry-sponsored movement, the coalition refocused its campaign to emphasize that existing structures were in place and that the new proposal would only slightly modify them, as opposed to the claims of industry. The HELP campaign organizers believed that the right to act could help channel community environmental action toward monitoring and cooperative agreements rather than utilizing a NIMBY framework where facility closure was the ultimate goal (Engler 1992). This progressive approach to framing in which a solution to environmental problems in New Jersey was potentially negotiable rather than solely anti-industry was intended to assuage the fears of conservative business and political interests. The New Jersey media portrayed this approach fairly well:

> An emphasis on developing controlled citizen action and worker action on and cooperation with management personnel represents an effort to defuse random, outside attacks on plant conditions and emissions that have led to the shutdown or threat to shut down major industrial operations, according to a labor backer of the bill. (Warshaw 1989)

Despite generally positive media coverage, this progressive message was not able to overcome the industry and business lobbies' portrayal of the bill as an impending source of job losses and facility closures. The right-to-act coalition attributed this gap between their ideal message and industry's misrepresentation to the relatively complex nature of the HELP legislation, which contained fifty-five sections in its simplified form.

Among these sections, two contested items acted as focal points for industry criticism. First, the community inspection component of the proposed legislation originally sought to establish community participation through "qualified community organizations" (QCOs). QCOs would be new institutional structures constituted by concerned neighbors of industrial facilities outside the direct influence of preexisting local government or unions. After qualifying by submitting a petition to the State Department of Environmental Protection, QCOs would be able to periodically inspect

a facility within five miles of their municipality. This type of structure for community inspection was promoted primarily by the environmental organizations in the Right to Know and Act Coalition, and after much internal debate, deference was granted to the environmental side despite labor's concern that QCOs might demand plant closures (Engler 1992, 47). During legislative negotiations, the coalition eventually conceded their goal of including community inspections, but the image of angry environmentalists being granted the right to inspect industrial facilities in New Jersey galvanized industries. The New Jersey Business and Industry Association claimed in a legislative briefing that "allowing untrained neighborhood representatives and an expert to accompany inspections would disrupt the workplace. These people then go to the press with unsubstantiated allegations and could severely hurt a business that has done nothing wrong."

Representatives of industry targeted their attacks against the community and environmental members of the Right to Know and Act Coalition, charging them with trying to interfere with private decision making. Rarely did the industrial lobbyists question the right of workers to participate in joint health-and-safety committees or in inspections. Only the additional element of community inspections figured in the center of the debate. Though the coalition emphasized the terrible consequences of worker exposure to toxic substances, the environmental activists were singled out, separate from labor, as the main proponents of what was seen as an intrusion on a private business's right to operate as it saw fit, within guidelines established by experts and lawmakers. Thus there was a perceived mismatch between the evidence of the need for HELP, which focused on the thousands of worker deaths and new cases of occupational disease, and the proposed solution of allowing community members to inspect chemical facilities. The coalition focused their arguments on issues such as the lack of OSHA inspectors, the lack of safeguards to protect workers, and the general lack of pollution prevention in the workplace—while the Business and Industry Association and other industrial interests emphasized the intrusion of QCOs into private business and the ignorance of lay citizens about the chemical industry.

The gap between the public's attention to occupational safety and health and the need for HELP was further widened by a sharp decline in manufacturing employment throughout the state. As jobs in both heavy and light manufacturing disappeared throughout the United States during the national economic recession that began in the early 1980s and still was on people's minds through the Right to Know and Act Coalition campaign, the potential for job blackmail increased and certainly contributed

to the campaign's failure. The toxic hazards in workplaces in New Jersey, while somewhat invisible to the general public, became even less of a political issue. Without major industrial disasters to shed light on the plight of the worker, the media focused primarily on the community aspect of the labor-environment coalition. Industry appealed both to politicians and the public when it claimed that HELP would be the straw that broke the camel's back in forcing industry out of New Jersey.

Though HELP built on the success of the Right to Know campaign, which argued that access to basic information about the chemicals one was being exposed to was a fundamental right of both workers and community members, the Right to Know and Act campaign did not sufficiently integrate the two core identities of the coalition. The militant opposition to HELP was able to capitalize on the fragmented identity of the coalition by focusing their attacks primarily on the environmental/community component, which arguably contributed to the failure of HELP. Political influence and money also played an important role in the failure of the HELP legislation. More so than with the Right to Know Act, HELP was perceived as a major economic threat to New Jersey's industry, and, accordingly, the chemical industry spent a significant amount of financial and political capital to defeat it. The environmental and community members of the coalition, through the proposed power of the QCOs, were attempting a great political challenge almost without precedent—asserting the right to enter and inspect the private property of the corporate world and make demands regarding manufacturing and storage processes. The opposition to HELP seized on this weak point and made ideological arguments regarding the intrusive nature of the proposed law. Industry made certain concessions to workers, such as approving limited worker participation in hazard prevention committees, but a line was drawn with the core ideological value of private property. Unfortunately, this was not a line the state's Democratic politicians and the general public were willing to cross.

Ultimately, the right-to-act campaign failed, revealing that although the framework of the right to act resonated with coalition members, translating the message to the general public and to the state legislature was a greater challenge than anticipated. Though forces outside the coalition's control, such as a rising unemployment rate and manufacturing decline during the campaign, contributed to the failure of the right-to-act movement, coalition leaders were unable to effectively communicate their message to the public and elected officials. Whereas in the right-to-know campaign, the general public greatly supported the right to access information, the connection between that right and the ability to prevent

toxic exposures in the community and workplace was not made clear. The public support generated political pressure on the state legislature. Much of the message of the need to be able to act on information obtained through the Right to Know Act was lost in the complicated language of the proposed HELP bill. Thus the coalition's goals did not resonate outside of the member groups, resulting in the lack of widespread public support and, in turn, the political failure of the right-to-act campaign. Although HELP failed politically, the solidarity between the labor, environmental, and social justice movements continued to thrive, and the Right to Know and Act Coalition grew in membership, ultimately transforming itself into the blue-green New Jersey Work Environment Council, a coalition of over one hundred member organizations.

Environmental Justice: A Challenge to the Coalition

The promise of integrating an environmental justice framework into a labor-environmental coalition hinges on the ability to overcome the class divide that traditionally separates the two movements. Since environmental justice as an activist framework is predicated on the alleviation of structural inequalities in social-class locations, one would assume that a coalition involving labor unions would have already developed a strong class consciousness. However, the class divide is not so much crossed as it is sidestepped when environmental justice organizations are brought into a coalition without fundamentally altering how that coalition defines itself and its purpose. When this class difference is addressed in an oblique fashion rather than dealt with directly, there is the risk of doubt forming about each group's commitment to working together. Such is the case in the WEC's attempt to collaborate around an issue involving a historically African American community in southern New Jersey that was faced with an overwhelming level of environmental toxics in their community. Although many environmental organizations, both in the state and nationally, offered support to this environmental justice struggle, the WEC itself was initially unable to find common ground with the South Camden Citizens in Action, the environmental justice organization representing the community. Several labor leaders suggested that because this environmental justice struggle was in direct opposition to the creation of new jobs, labor's obstinate commitment to new employment was a hindrance. If this sentiment is true, and labor's position must always act as the WEC's default, then the future for this blue-green coalition is bleak.

South Camden Citizens in Action brought the issue of environmental inequality in New Jersey to the public's attention in 1999, when the small minority community group challenged a decision to build a hazardous facility in their backyard. Though the WEC did not become directly involved in this particular fight against environmental inequality, the lessons learned about the challenge of integrating issues of institutional discrimination and racism into a blue-green coalition made the WEC capable of adapting and growing into a larger and more influential organization.

In December 1999 the Canadian corporation St. Lawrence Cement began construction of a cement plant in the predominately black and Hispanic Waterfront South neighborhood of Camden. The neighborhood, which is less than a square mile in size and houses roughly two thousand residents, already had two Superfund sites, a power plant, and Camden County's trash-to-steam incinerator and sewage treatment facility. The St. Lawrence Cement plant would add to the overburden of environmental health hazards in this tiny community by grinding and processing blast furnace slag, which would potentially emit high quantities of dust, mercury, lead, sulfur oxides, and volatile organic compounds into the air.

The residents of Waterfront South formed the South Camden Citizens in Action to address the myriad environmental problems in their community, including the construction of the slag cement plant. In early 2001 South Camden Citizens in Action took their environmental justice struggles to court and filed a complaint alleging violation of Title VI of the Civil Rights Act against the State Department of Environmental Protection and its commissioner regarding the St. Lawrence Cement plant. In a nationally precedent-setting decision, the federal court ruled in favor of the citizens group, finding that the State Department of Environmental Protection violated the South Camden residents' civil rights by failing to adequately investigate during the permitting process whether the construction of the cement plant would have an unfair effect on their health and environment (Schurr 2001). The New Jersey State Department of Environmental Protection appealed the decision, making the prototypic claim that a state cannot be sued for policies that discriminate unless it can be proved that the discrimination was intentional. Again, the federal court found in favor of South Camden Citizens in Action and maintained the injunction on the cement plant's opening until the State Department of Environmental Protection reevaluated its air pollution permitting process. Representatives of St. Lawrence Cement leveraged issues of jobs versus the environment in their denunciation of the federal ruling. "We believe an unfavorable ruling will dissuade companies from considering private investment in

those areas most in need of economic revitalization," claimed one of their lawyers (Schurr 2001b). An economic consultant to the company made a similar argument, "[St. Lawrence Cement] is estimated to inject more than $25 million into the local economy over the next five years and spin off hundreds of job opportunities supporting Camden's long-term revitalization efforts. We are concerned that these tangible benefits are put at risk by the recent court decision." The appellate case drew national attention, and groups like the Natural Resources Defense Council, the National Association for the Advancement of Colored People, the Sierra Club, and the American Civil Liberties Union filed legal briefs in support of the Camden residents. Only three days after the original injunction filed against St. Lawrence on April 19, the U.S. Supreme Court ruled in *Alexander v. Sandoval* that there is no private right of action to enforce "disparate impact" regulations promulgated under Title VI of the Civil Rights Act. This ruling was perceived as a major blow to the environmental justice movement, which struggled with the challenge of demonstrating discriminatory intent in questions of hazard siting. The appellate ruling in *SSCIA v. St. Lawrence* was among the first major challenges to the *Sandoval* precedent. Despite public support for the grassroots environmental justice struggle, the appellate court allowed the cement plant to open and operate while the case was under consideration. In an ironic press statement, St. Lawrence proudly announced that the company had hired a total of fifteen workers for the plant, ten of whom were from Camden—somewhat shy of the hundreds of jobs promised by St. Lawrence's economic consultant (Mulvihill 2001). In another bit of irony, then governor and future director of the EPA, Christine Todd Whitman, celebrated the opening of the cement factory and officially cut the ribbon of the slag-grinding plant. One environmental justice activist highlights the sense of bitter dismay experienced by the local residents:

> In fact, Whitman cut the ribbon at the groundbreaking ceremony for St. Lawrence because she was so happy they were coming in! I'm laughing because it didn't hardly create any jobs at all, just a handful. It's a highly automated plant, and they weren't going to hire any local people anyhow, especially for any job paying any significant wages. And the plant was built on state-owned property. It's not controlled by the city at all. The city receives no benefits from that facility. None. But it gets all the burdens from it, because now we have a community of people that are sicker than they were before. They're using the emergency rooms—the city is picking up part of that tab.

> And children, the elementary school there, Sacred Heart Elementary School, all those kids have asthma and the principal [does too]. The children don't want to go outside and play. To them it's punishment. Because when they go outside they get sick. And they have to come back and get on their little inhalers because they can't breathe. So that cement plant is sort of the last straw. I don't know if you've been down there to see it in person, but you will see these mounds of cement dust all over the place.

What was a publicity event for Governor Whitman and the owners of St. Lawrence Cement turned out to be a punishment for the children of Waterfront South.

In December 2001 the 3rd U.S. Circuit Court of Appeals ruled that allowing the cement plant to operate did not amount to a form of intentional discrimination by the New Jersey Department of Environmental Protection. The three-judge panel found that South Camden did not possess an enforceable right to be protected from the disparate impact of the now-operating cement plant. South Camden Citizens in Action continued to fight St. Lawrence Cement by taking the case to the Supreme Court, which in June 2002 refused to hear the case, upholding the appellate court's ruling to allow the plant to operate. Other claims were filed against St. Lawrence Cement with various degrees of success.

Noticeably missing in the outcry of support from the environmental movement was the official endorsement of the Work Environment Council. When asked, several WEC organizers and members pointed to their strategy of "agree to disagree" when certain issues were divisive. Many thought that this mechanism was common to any type of coalition. Said one longtime labor activist involved with the coalition, "There has to be that recognition that sometimes the disparities are too great to overcome. And you just agree to disagree and stay together on the things that you can be together again on." When asked why the WEC was unable to officially lend its endorsement to South Camden's environmental justice struggle, respondents focused on the relative youthfulness of the coalition in its incarnation as the Work Environment Council:

> [The] WEC was too young, too just getting on its feet. You know, relationships weren't really there. People were willing to have the discussion, which was an important first step. There might have been other occasions where nobody was willing to discuss it. You have to take baby steps, but it tends to be baby steps on the side of labor.

Much of the success of the New Jersey labor-environment coalition is based on personal relationships that have formed across movement divides. However, the racial dimension of the environmental justice campaign in Camden had not figured prominently in the WEC's past campaigns or collective identity. At that time, one major labor sector not involved with the WEC was the building trades, which had a stake in the construction of the cement plant. Concurrently with the conflict over St. Lawrence Cement, the WEC had been strategizing about how best to approach the building trades unions and involve them in the blue-green coalition. St. Lawrence Cement provided a major hurdle for these recruitment efforts—which were ultimately unsuccessful—and complicated the WEC's involvement with the environmental justice struggle. Another respondent pointed to the unfamiliarity and lack of sensitivity to issues of racial discrimination in the context of their work:

> There's always a little bit of distrust and feeling that the other person doesn't really know. The other person doesn't really know. I find that in my work with this environmental justice community in Camden. These are predominately African Americans living in poverty conditions. I'm kind of the outsider. I live in [name of city]; I'm white; I'm middle class. How can I really know what this struggle is? So there has to be a period of trust building and basically learning about each other and learning to work together. And that really just comes about through personal contact.

At the time of the legal and political battles surrounding St. Lawrence Cement, those personal contacts between the various coalition communities and the environmental justice/civil rights activists were only beginning to form.

Without those interpersonal bonds, other WEC members felt that they would be intruding in the environmental problems of a foreign community, risking losing potential labor partners who believed that the construction of the cement plant would create jobs in New Jersey and therefore should be endorsed by the blue-green coalition. WEC organizers, however, remained sensitive to their unfamiliarity with the issues facing the South Camden residents:

> But I'm pretty cautious because we're a big organization and I don't want people thinking that we're coming in and deciding other people's fate or what their communities should be looking like.... I have some board members who live within communities and come from

> the environmental justice community and work on toxic issues in [name of city], and I have a staff person who lives in [name of city] and knows what it is. But, you know, the community has to decide what it wants.

Others emphasized the strength of the building trades in New Jersey's labor movement and the importance they placed on building the St. Lawrence Cement plant:

> This St. Lawrence Cement plant that got built in Camden was a "jobs versus the environment" issue. The building trades very much wanted to see the plant built—it was a big construction job to build the plant. Once it got built there weren't very many jobs; there's like forty jobs. It's not a significant amount of jobs, but building it was a big thing.
>
> I think that labor people have a perception that environmental justice people are exclusively NIMBYs, that they're not willing to talk about anything else. But I don't think that's true.

This quote distinguishes between the identities of so-called labor people and environmental justice people, which, regardless of purposeful intention or not, symbolizes the underlying tension between the two.

The WEC ultimately integrated the structural critiques and environmental justice into its overall framework. The coalition has been able to successfully do so by hiring people of color to staff environmental justice initiatives in the organization, by using these new bridge brokers in education and training of the coalition's membership, and by bringing in local grassroots environmental justice groups. In a state where environmental justice is only just emerging as a major public issue, the WEC's environmental justice work is a fundamental aspect of their current organizing.

Another significant contribution arising from the WEC's involvement in the environmental justice movement has been the launching of a statewide environmental justice alliance, an umbrella organization for groups interested in environmental inequality and a state-sponsored task force. The combination of worker health-and-safety activism, environmental protection, and environmental justice is a potent approach and is certainly groundbreaking. As one WEC member states:

> [The] WEC has been, on a statewide basis, certainly one of the major organizations that has been pushing the envelope on environmental justice and helping to serve as a coordinating body and

> a clearinghouse on the issue. Which does not mean that we're not an environmental justice organization per se. But the environmental justice program is one of our major problems. It's one of the ones that we've invested a lot of resources in and will continue to do that.

Many of New Jersey's polluting industries are located in or nearby minority communities, such as Camden, Newark, and Paterson. The proximity of such large minority communities to hazardous facilities creates multiple opportunities for interaction between community residents and workers, which develops important relationships leading to the incorporation of environmental justice into New Jersey's blue-green alliance. The incorporation of the environmental justice framework reinforces the notion that the environment is not just something "out there" for a few to enjoy. It's all around us—even in New Jersey:

> One good thing about the environmental justice movement in general for environmentalists and workers and whatnot is that we expanded people's concept of what the environment is. And, for us, the environment is the place where you work, play, pray, and go to school. It's not just the natural environment. We're looking at other factors in the environment. And so, consequently, it's broadened the perception of what environment is. And unfortunately if you look at the traditional environmental organizations, they have had a narrow focus, and their definition has been narrow about the environment.

By broadening its critique of workplace and environmental hazards by incorporating elements of environmental justice, the Work Environment Council is able to reach out to a broader audience of at-risk community members. If the main purpose of a blue-green coalition is to facilitate a dialogue about the possibility of collaboration, each new element that the WEC is able to build into its collective identity adds to its political influence and the possibility of improving the health of all residents of New Jersey.

Chemical Safety, Not Secrecy

In the wake of the September 11, 2001, terrorist attacks, several government officials and environmental organizations raised troubling questions about the security of the nation's chemical infrastructure. The

vulnerability of chemical facilities and the close proximity of several to metropolitan areas may make them ideal targets for terrorists, with far greater potential for harm to public health than the attack on the World Trade Center. In 2003 the U.S. General Accounting Office identified 123 individual facilities for which there were worst-case catastrophic scenarios of potential exposures of more than a million people to clouds of toxic chemicals. Given the magnitude and severity of this health risk, we might think that policymakers would take significant action to reduce the likelihood that an accident or deliberate attack might occur.

Instead, the policy debate that occurred after 9/11 more closely resembles another chapter in an unending grudge match between environmentalists, industry, and politicians. With New Jersey's high population density and multiple chemical refining facilities, the Work Environment Council finds itself not just in the middle of this debate but playing a major role in the struggle to pass the strictest laws for state management of chemical security while continuing to hold together the labor-environmental coalition.

Up until 2001 very little attention had been paid to security, and infiltrating the chemical plants of New Jersey might have only involved pulling over to the side of the New Jersey Turnpike in Linden. Working with the State Department of Environmental Protection and several federal bodies, the chemical industry has developed a set of internal voluntary compliances to improve security. Numerous environmental, community, and labor organizations are skeptical as to the efficacy of such measures. A new campaign called Safety, Not Secrecy marks a modification of New Jersey's original coalition frame to incorporate some of the rhetoric of homeland security to re-advocate for some of the basic measures outlined in the Right to Know and Act campaign. This campaign has largely been involved in defending New Jersey's strict chemical safety guidelines from closed-door deals between the state and the chemical industry, and from federal attempts to attack the state's policies under the guise of not allowing state preemption of weaker federal regulations.

Since 9/11, a reevaluation of chemical safety has swept through the public and private sectors. Infrastructure and utility management companies quickly reassessed their onsite security and undertook efforts to reinforce existing barriers, surveillance, and manpower. Several facilities went further in their reaction to the threat of attack by assessing the safety of the materials stored and utilized behind the gates and guards at their perimeters. In Washington, D.C., across the Potomac River from the damage at the Pentagon, the Blue Plains Wastewater Treatment Plant,

after initially increasing security, sought to reduce the risk of a chemical disaster from liquid chlorine by substituting the less hazardous chlorine bleach for secondary treatment (Leonnig and Hsu 2001). While the mass media presented scenarios of waterborne pathogens spread through public drinking water supplies, utility managers at Blue Plains realized the chemicals stored at the treatment facility could potentially harm or kill thousands of D.C. residents. *The Washington Post* reported that in November 2001 officials at the treatment plant began removing up to nine hundred tons of hazardous substances stored in train tanker cars and found a temporary solution to using volatile chlorine gas with a liquid bleach formulation. The temporary solution was found following a denied request to the EPA to be allowed to stop disinfecting the sewage while more permanent changes were made. The EPA instead recommended a "hardening" of storage facilities by "adding concrete barricades, garages, or buried tanks" rather than altering the treatment process by finding less hazardous substances (Leonnig and Hsu 2001). Rather than investing in these security infrastructure improvements, Blue Plains switched to a safer alternative. The EPA's proposed approach to promoting security over safety, however, was typical of governmental responses to the threat of terrorist attack.

In early November 2001, Sen. Jon Corzine of New Jersey and the chairman of the Senate Committee on Environment and Public Works, James Jeffords, introduced a bill that would require the EPA and the Justice Department to enforce strict new regulations to improve security measures to protect against terrorist attacks at chemical facilities. The original Chemical Security Act (S. 1602) included several penalties for failure to comply, including up to a year in prison and $25,000 a day in fines for first-time offenders. Opponents of the bill quickly highlighted the punitive elements of the bill, with one chemical industry lobbyist stating that "this bill would make criminals of victims." Faced with opposition from corporate lobbies and conservative interests, the bill's proponents sought to attach it to a larger vehicle such as the Department of Homeland Security. Senators Jeffords and Corzine managed to gain approval for two measures related to the Chemical Security Act to move out of the Senate Environment and Public Works Committee and be attached to legislation that would later create the Department of Homeland Security. One measure addressed safety and security issues at nuclear power plants and the other addressed safety and security issues at chemical facilities. Despite support from other prominent Democrats such as Senator Hillary Clinton of New York, the GOP was able to block a vote on the bill.

As attention to chemical security began to wane, the Republicans on the Environment and Public Works Committee, in addition to several senators from the Democratic Party, announced that they would oppose the attachment of the amendments to the Homeland Security Bill. This lack of solidarity and strong opposition from the Republicans defeated any chance of moving forward on chemical security in 2001.

Support for new measures to address the gaps in chemical security also existed within the White House and federal agencies. Attacks from corporate interests, particularly from the chemical industry's lobby—the American Chemistry Council—led the George W. Bush administration to abandon the proposed Chemical Security Act of 2001 that would give the EPA new authority to force chemical plants to identify and rectify security flaws in the production and storage of hazardous materials. Then EPA administrator, Christine Todd Whitman, would later state in her book, published after being dismissed from her post, that "the [American Chemistry Council] fought hard against my efforts. I sometimes wondered whether those companies spend more money trying to defeat new regulations than they would by simply complying with them" (Whitman 2005). The American Chemical Council fiercely contended that federal regulations were not required, as facilities could adopt new security measures voluntarily. Following the decision to not enable the EPA to address chemical security hazards, the administration declared its support for a bill promoted by the senior Republican on the Senate Committee on Environment and Public Works, Sen. James Inhofe of Oklahoma, which gave *oversight* authority to the proposed Department of Homeland Security. Senator Inhofe's bill, the Chemical Facilities Security Act of 2003 (S. 994), only *encourages* companies to share information with the government about their security measures, with the assurance that all reports will be kept private. There were no criminal penalties as in Corzine's bill, reintroduced as the Chemical Security Act of 2003 (S. 157), though there were potential civil penalties. Neither bill made it to a full vote in the Senate.

The competing proposals represent an ideological conflict over paradigms for protecting the American public from terrorist attacks on chemical facilities. One approach, which is referred to by its advocates as "safety," would grant the EPA the authority to force industries to address points in the production process and storage where hazardous substances could be phased out through substitution or alteration of the production process, thus reducing potential hazards. The alternate paradigm, which emphasizes "security" measures such as armed guards, security barriers, and surveillance, is the approach favored by corporate and industrial

interests—though on an expressly voluntary basis. The very nature of the security paradigm is demonstrated in its proposed positioning in the Department of Homeland Security. Due to the greater attention placed on issues of "security" following 9/11, Sen. Inhofe's bill received much greater support in the Senate. After the Republicans gained control of the Senate in the 2002 elections, Sen. Inhofe became the chair of the Committee on Environment and Public Works, which gave his own bill even more clout though it never made it to a vote in the Senate. However, the Inhofe bill became seen as the White House's position on chemical security, and many of the elements of this approach to managing hazardous substances in the face of catastrophic release became implemented in Homeland Security regulations.

The attention placed on issues of security rather than safety allows corporate industrial interests and owners to present an image of compliance and vigilance in protecting the general public. In early 2003 the owner of the Kuehne Chemical plant in New Jersey told the press that "his company has already undergone a vulnerability analysis by a consulting firm.... The company has improved perimeter fences and enhanced lighting and video monitoring of the plant. Armed personnel conduct regular patrols of the fence" (Morley 2003). Kuehne has since recognized the imperative for improving security, as its facility in New Jersey regularly receives railcars loaded with chlorine gas that if attacked could potentially affect millions of residents in New Jersey and New York. Despite the fact that Kuehne has identified solutions, the company faces steep costs for implementing changes to their security practices.

At the request of several Congressional members, the General Accounting Office completed a study investigating the security of the chemical industry in the United States (U.S. General Accounting Office 2003). Produced in the midst of the debate following 9/11 regarding whether the federal government should impose new security measures or rely on industry to voluntarily address security concerns, the report is critical of existing measures while at the same time mildly supportive of industry's voluntary initiatives. However, the report does present several dramatic facts documenting the enormous risks of both terrorist attacks and "normal" accidents in the manufacturing and storage of hazardous materials. In New Jersey alone there are seven individual facilities using "extremely hazardous materials" that could cause potential harm to more than one million people in the event of a worst-case scenario accident (U.S. General Accounting Office 2003). An EPA "worst-case scenario" involves estimating the effects of a toxic chemical release involving the greatest amount of

the toxic chemical held in a single vessel or pipe—not the entire quantity on site. The GAO states in its report that "it is conceivable that an attack, where multiple chemical vessels were breached simultaneously, could result in an even larger release, involving more severe consequences, than those estimated in the [risk management plan] 'worst-case scenarios'" (11). These facilities are often located in close proximity to residential neighborhoods and pose a direct threat to the health and livelihood of those who live there. Since there are no federal or state laws explicitly addressing security issues in relation to terrorist attacks at these facilities, many community residents are not willing to place their lives in the hands of the owners and operators—who do not necessarily live anywhere near their facility.

By 2003 the Democrat sponsors of the Chemical Security Bill (S. 157) were forced into a defensive position. Under the chairmanship of Sen. Inhofe, the Senate Committee on Environment and Public Works approved the chemical industry's favored legislation requiring reporting and only voluntary action in October, only a year after the much stricter bill was similarly approved (Kady 2003). Despite numerous attempts from Democrats to amend the legislation to include provisions for approving vulnerability reports and enforcing actions to improve security and safety, Senator Inhofe and Senator Billy Tauzin of Louisiana were able to move the pro-industry bill into the Senate with the committee's approval. Environmentalists and Democratic opponents of the bill voiced their dismay over the lack of industry accountability. "If we're going to go through all this trouble…we ought to have some kind of certification of compliance," said Senator Clinton, "otherwise we are going through an exercise that lacks accountability." Though partisan support for the Chemical Facilities Security Act remained strong in 2003 and 2004, there was no agreement in the Senate on any chemical security act. Though no specific bill has been passed that sets Congressional guidelines for chemical security, the Department of Homeland Security moved forward with a set of largely industry-defined guidelines in 2006 and 2007. These regulations then set in motion a major debate between the chemical industry, environmentalists, and other affected parties around chemical safety and security.

In New Jersey, where Senator Corzine successfully ran for governor in 2005, there is both a strong bastion of support for chemical security legislation and strong opposition from chemical manufactures. Because of its high population density and the prominence of chemical manufacturers, New Jersey possesses some of the most catastrophic risks of chemical disasters in the nation. According to the risk management proposals

required of industry under the Clean Air Act—which today are no longer available online but only in reading rooms—millions of people could potentially be harmed or killed.

Shortly following the attacks of 9/11, New Jersey passed the Domestic Security Preparedness Act, establishing a task force to prepare and review standards and guidelines to "preserve, protect, and sustain the critical assets of the State's infrastructure." The Domestic Security Preparedness Task Force consists of six state officials and three members of the public.

A number of accidents involving the transportation of hazardous substances occurred in rapid succession beginning in late 2004, generating public concern regarding the vulnerability of New Jersey's citizens. In November 2004 roughly 470,000 gallons of oil were spilled into the Delaware River between Philadelphia and southern New Jersey, killing hundreds of waterfowl and temporarily shutting down two nuclear power plants that draw on the Delaware for cooling. Investigations found that a submerged piece of refuse pipe had cut a gash in the hull of the passing oil tanker (Caruso 2004). In early January two trains collided in Graniteville, South Carolina, releasing chlorine gas from a ruptured transportation tank. Nine people were killed due to the inhalation of chlorine, fifty-eight were hospitalized, and thousands of people within a mile of the accident were evacuated (Bogdanich and Drew 2005). Later that January a freight train derailed in a Pittsburgh suburb, sending several cars into the Allegheny River. One of the train cars leaked an unknown amount of hydrogen fluoride, a highly toxic chemical used in steel manufacturing, into the river, forcing the evacuation of two hundred local residents. The WEC, among other environmental organizations, called for stricter standards governing the transport and storage of hazardous chemicals in New Jersey and elevated chemical security among their priority areas.

New Jersey's blue-green alliance has simultaneously fought against "chemical security" in the form of superficial efforts to limit toxic hazards and against "chemical secrecy," where deals between industry and the state government are made behind closed doors. During the political battles at the national level over forcing private industries to enact stricter safety policies and potentially substitute less dangerous substances for hazardous chemicals, representatives of the chemical industry sought to work out a deal with the State of New Jersey to adopt the industry's "best practices" as its official regulations. A deal was established in late 2003 without the input of the public through the legislative process and excluding the chemical workers' unions, independent experts, and concerned citizens. The WEC's public attempt to obtain a copy the state's agreement with

the chemical industry, proposed in a draft called the "Memorandum of Understanding Concerning Domestic Security Preparedness," was denied by the State Department of Environmental Protection—only a few representatives of the coalition were even allowed to view it behind closed doors. Under the guise of security against potential terrorism, the state claimed that "inspection, examination, or copying of that record would substantially interfere with the State's ability to protect and defend the State and its citizens against acts of sabotage or terrorism and because disclosure would materially increase the risk or consequence s of potential acts of sabotage or terrorism." The state also denied requests for the "best practices" agreement from several union locals representing chemical plant employees, on similar grounds, despite the fact that chemical plant employees are on the front line of the war against potential sabotage and terrorism.

In mid-February 2005, the campaign for stricter chemical security was officially announced by the Work Environment Council at a news conference outside the statehouse where it also discussed the submission of a letter signed by over seventy labor, community, and environmental organizations to Acting Governor Richard Codey calling for an end to closed-door negotiations between the state and industry representatives about plant-safety issues. In the letter, the WEC asked that the State Department of Environmental Protection and the New Jersey Domestic Security Preparedness Task Force not enter into an agreement with chemical company executives that would allow industry to set its own goals and regulations for security improvements. These "responsible care" codes would then become the state's policy to address the risks of potential terrorist attacks. The press release did more than announce the WEC's grievances with the secret negotiations; it revealed to the general public the Department of Environmental Protection's reliance on industry data and reports to design policies impacting millions of people.

By fall 2005 Jon Corzine had become governor of New Jersey, marking a significant shift in the political climate for advancements in chemical security policy. Following their two-year effort to improve chemical safety guidelines in the state, the Department of Environmental Protection superseded the industry-developed responsible care codes with certain pioneering mandatory measures. In September 2005 the department, under pressure from the governor, announced an administrative order granting workers and union representatives the right to accompany inspectors on inspections of facilities using extremely hazardous chemicals. Marking a concession initially called for during the right-to-act campaign, this

victory was a major breakthrough. It was accomplished largely due to the involvement of the WEC coalition in the politics of chemical security and the united front of workers and environmental interests in the state. Governor Corzine and the state government have since created some of the strictest policies in the nation. As of March 2006, companies that use or store particularly hazardous chemicals with potential risks of catastrophic release must regularly assess these risks and vulnerabilities. Chemical facilities that are covered by the state's Toxic Catastrophe Prevention Act (1986), which was passed in the wake of the Bhopal disaster to force companies storing large amounts of hazardous chemicals to take precautionary action to prevent catastrophic accidents, must also carry out an assessment of inherently safer technology, such as the substitution of safer chemicals and processes—a provision vehemently opposed by industry and its trade associations.

The passage of strict chemical security policies in New Jersey that include inspections, assessments, and considerations of alternative technology sparked a firestorm of political debate at the national level. The Department of Homeland Security, which was ultimately granted the authority over chemical policy after winning a political wrestling match with the Environmental Protection Agency, chose to write much less strict regulations regarding how the chemical industry should respond to the threat of terrorism. Two pieces of regulation were in operation at the same time—one requiring the chemical industry to behave differently than it had before 9/11 and the other maintaining the relative status quo. Homeland Security officials, with the support of the chemical industry, made the argument that no state should be allowed to supersede federal standards, despite this practice being the norm for most environmental regulations. The debate raged between environmentalists, state politicians, and industry and their allies in Congress from 2005 to 2007, with the president finally signing a bill at the end of 2007 allowing states to go further than the Department of Homeland Security. Additionally, in summer 2007, the Department of Homeland Security took the first steps in establishing a comprehensive regulatory program to address vulnerabilities in the chemical industry. Facilities considered by the government to be "high risk" must provide real-time tracking of hazardous substances and are subject to stricter oversight from Homeland Security. These guidelines were loosened, however, after months of protest from affected industries. The debate over how best to manage chemical safety in security continues to be fought, with states like New Jersey taking the lead in advancing the strictest regulations. It is unlikely that New Jersey's creation of strict chemical security regulations

would have been possible without the political support and advocacy efforts of the WEC. Many of the practices involved in improving chemical plant security involve improving working conditions, providing better information, and finding alternatives to risky substances and technologies—each an element involved in one of the WEC's many campaigns.

Protecting Work and the Environment

Political threats continually made to New Jersey's right-to-know laws and chemical security regulations provide a clear rationale for many of the labor and environmental groups that participate in the WEC to maintain their solidarity. Though the perpetual defense of this early and important victory may limit the field of proactive strategies the coalition chooses to pursue, it does hold the diverse community of social movement actors together in a common struggle. Without the common ground of defending their right to know, the various organizations participating in the coalition would likely go their separate ways to work on their specific interests.

The coalition identity forged in the early 1980s during the fight for the right to know has persisted for over twenty years with only a few changes. The right-to-know issue provided a fertile common ground where environmentalists and workers could think about how collaboration might aid each interest group in accomplishing their goals. From workers' stories of exposures on the job to environmentalists' frustration with fighting a campaign without being able to access information, each side lent a necessary political element—and produced some of the strictest laws regulating the storage and use of toxic substances in the nation. Though the WEC has achieved these great successes, it also has experienced its fair share of failure. Indeed, local political context is critical. As demonstrated by the failure of the right-to-act campaign, political opportunity structures can act as constraints on the strategic use of identity. In that light, although both labor and environmental interests backed the right to act, it was insufficient to successfully pass the HELP legislation. Faced with the closure of the political opportunities accessed successfully in the initial campaign, to succeed the WEC had to modify the coalition's frame. They successfully accomplished this modification by extending the coalition's goals to incorporate concerns about homeland security and eventually persuaded the state to make key concessions in the passage of strict regulations governing the management of hazardous substances and the security practices of companies storing them. Lessons learned from the struggle over

construction of the St. Lawrence cement plant have also caused the coalition to modify its goals and approach to campaigning for safe workplaces and healthy environments in New Jersey. In recognizing the legacy of racism that places minority groups at greater risk of exposure to many environmental hazards, the WEC has been a leader in the advocacy for environmental justice and sponsors several campaigns and activities in New Jersey to incorporate environmental justice in their work.

New Jersey's Work Environment Council is an important example of how cross-movement coalition building may take place. It exemplifies the point that favorable political opportunities are necessary and important but not sufficient on their own in explaining why such collaboration is successful. Though favorable political opportunity shifts led the coalition to believe they would have success in both the right-to-know and right-to-act campaigns, the ability of the coalition leaders to articulate a clear agenda with a well-articulated set of goals ultimately determined the degree of success. In the case of the right-to-know campaign, coalition builders framed the issue in terms of a basic human right to information, which resonated throughout its organizational membership and enabled a political victory. But in the case of the right-to-act campaign, the same coalition leaders, facing an economic recession and concerns about declining state industries, failed to construct a well-articulated collective-action frame and were thus unable to capitalize on the favorable political opportunity structures. As new directions for the WEC to pursue emerge, such as environmental justice and chemical safety, the key to their success lies in its leadership's ability to carefully articulate goals and strategies and to build a collective identity that provides a constant reminder that collaboration offers enough of a political reward to keep participating groups interested in learning what else might be possible.

4

Revealing the Hidden Perils of High-Tech

The Silicon Valley Toxics Coalition, located in San Jose, California, is my third case study of a labor-environmental alliance that is oriented around health. This organization faces a number of challenges unique to this region where the high-tech electronics and computer industry boomed in the 1980s. For most outside observers, the high-tech industry that developed in the Silicon Valley—as the manufacturing region in the Santa Clara Valley came to be called—is seen as a safe and clean neighbor that could be easily integrated into light-industrial areas that bordered residential suburbs. Images of scientists working in "clean rooms," dressed in airtight personal protection suits while manufacturing the microprocessors that countless electronic consumer goods need, dominates the public's perception of the industry. However, there is a darker side of this industry—hidden environmental and occupational hazards that are poisoning workers and contaminating communities where electronics are produced and the communities across the globe where their waste is disposed of.

Activists challenging the high-tech industry face an uphill battle against the political and economic power of the large corporations that own the manufacturing plants in Silicon Valley. Coupled with the public's false sense of security regarding the cleanliness of the high-tech industry, the early environmental efforts to force the industry to clean up its act were met with much resistance. Challenges to the economic willpower and political muscle of the high-tech industry are further complicated by

an intricate system of subcontracting and overseas manufacturing that prevents coordinated regulatory strategies. The threat of down-sizing and outsourcing weighs heavily on the minds of workers employed in high-tech even more than it does in other industries targeted by blue-green coalitions. Grassroots challenges to corporate practices of pollution involve lengthy endeavors to gain access to proprietary information, lawsuits against corporate giants like IBM and their chemical suppliers, and public education campaigns to dispel the innocent notion of a safe and clean industry. The Silicon Valley Toxics Coalition has been one of the few organizations to successfully overcome all of these challenges, and today it leads a global campaign for corporate accountability and sustainability in the high-tech industry. Much of their early success is attributable to involving a diverse array of environmentalists, community activists, and both union and nonunion labor advocates. However, attracting and maintaining labor members has been more difficult than in the cases of Boston's Alliance for a Healthy Tomorrow and New Jersey's Work Environment Council. Ultimately, the health-based framework failed to hold the labor and environmental elements of the coalition together when economic pressures and shifts, such as outsourcing and the decline of manufacturing, destabilized the local labor movement.

Because silicon is the key ingredient in the manufacture of semiconductors, the once predominately agricultural region that was known as the Valley of the Heart's Delight came to be renamed the Silicon Valley. An estimated 70 to 80 percent of the people working in production jobs in the Silicon Valley are immigrants, women, and people of color (Pellow and Park 2002). Whereas the high-tech industries that flowered in the Silicon Valley are typically associated with incredible wealth for their CEOs and stockholders, there is a hidden side of low-wage, low-skill production jobs that are performed primarily by minority workers. In 2000 the U.S.-based electronics industry employed nearly three hundred thousand workers worldwide in the $300 billion industry. However, this wealth is not distributed equally among the high-tech industry's employees. For example, between 1991 and 1996 the ratio of annual income of the top one hundred Silicon Valley executives to the average worker jumped from 42:1 to 220:1 (Pellow and Park 2002, 87). On average, a low-skilled manufacturing worker earns less than $10,000 a year while the CEOs of companies like IBM, Hewlett-Packard, and Apple earn nearly $100 million.

In addition to disparities in income, workers in the semiconductor plants are virtually powerless to protect their health and safety in the workplace. On average, 60 percent of production line workers are

female whereas 85 percent of managers are male. Personal experiences recounted to Pellow and Park (2002) detail a workplace of strict adherence to the manager's authority, often in opposition to official health-and-safety training and regulations. The most common exposures involve faulty exhaust systems. The chemicals utilized in the production process vaporize and are breathed in by workers on the production line. Racial discrimination is often a factor in the high-tech workplace. Much of the workforce consists of Asian immigrant women who are hired because of a racially stereotyped employment profile that construes these women as more likely to follow instructions without question. Many of these workers are also permanent temporary workers, never allowed to work enough hours to qualify for benefits, and are thus kept in constant threat of losing their jobs should they complain about health or safety conditions.

Furthermore, these workers are almost exclusively nonunionized. The companies in which they are employed are fervently antiunion. Reaching out to and creating a blue-green coalition with these workers who lack collective representation and where there is not an easily identifiable and stable point of contact is challenging. Instead of traditional unions, worker-oriented community groups are the predominant "labor" representation in the Silicon Valley Toxics Coalition, which leads to an organizational structure quite different from the Work Environment Council and the Alliance for a Healthy Tomorrow. Much like the New Jersey WEC, the Silicon Valley Toxics Coalition began as a project of a COSH, in this case the Santa Clara Center for Occupational Safety and Health (SCCOSH). Founded as a campaign project in 1982, the Silicon Valley Toxics Coalition began as a coalition project of environmental, public health, community, firefighter, and labor organizations that was run by SCCOSH. Ted Smith, the coalition's first executive director, was instrumental in bringing the diverse groups together to work on issues related to groundwater contamination around manfacturing plants operated by Fairchild Semiconductor, IBM, National Semiconductor, Hewlett-Packard, and other high-tech companies. While SCCOSH continues to be an important bridge-brokering organization for the SVTC, in 1984 the SVTC became an independent organization dedicated to working on environmental, social, and worker issues related to the high-tech industry. Its first major campaign drive was in response to a local discovery of toxic groundwater contamination. It organized around the passage of a local city right-to-know ordinance. As in the WEC campaign for the right to know, the SVTC organizers believed that labor concerns should play a major role in the formulation of the right-to-know legislation and that their participation would add legitimacy to the campaign.

In only a year following its inception, the SVTC was successful in persuading several of the municipal governments within Silicon Valley to pass some of the first community right-to-know ordinances along with strict regulations for the storage of hazardous chemicals. Despite the initial success of the early campaigns, labor's participation in the coalition has dwindled. While the AHT and the WEC developed during a time when heavy manufacturing was already on the way out in those areas, the SVTC was a developed coalition when the semiconductor manufacturing industry underwent a significant transformation in the global competition for growth in high-tech and the subsequent global expansion of production and began to leave the Silicon Valley. This shift in production sent most of the semiconductor manufacturing work from the plants in Silicon Valley to smaller plants overseas and into flexible small-scale production scattered across the San Jose area. Furthermore, the shift in the production regime inhibited the growth of major international unions that could act as stable partners in a struggle against the high-tech industry. A number of unions that exist peripherally to the high-tech industry, such as the Communication Workers of America, represent contractors who service the remaining plants and their information-based replacements throughout the region, and they continue to maintain their affiliation with the SVTC.

The SVTC's ability to maintain the participation of labor groups and to recruit additional support was hindered by a significant mission shift that broadened the scope of the organization but limited the potential rewards for labor. Over time the SVTC developed a broader critique of the electronics industry and engaged in organizing work around the globe to address the hazards associated with the production, use, and disposal of consumer electronics. Whereas the SVTC originally focused on winning the right to know and applying it to reducing toxics in the workplace and the environment, its redesigned purpose focused primarily on corporate accountability and sustainable production in the high-tech industry. Without the prioritization of the health aspect—which the SVTC does continue to work on—labor's motivation to participate has waned; and in an antiunion climate where organizing is exceptionally challenging, expending the resources necessary to participate in a coalition has proven too costly for many of the SVTC's former labor partners. This shift caused the Silicon Valley Toxics Coalition to be more representative of the dissolution of a blue-green coalition than the preservation of one. However, I do not view the trajectory of the SVTC as ultimately that of a failed blue-green coalition, and indeed what the organization has done is to develop an alternative form of collaboration. While the final form of the SVTC's

collaboration with labor does not necessarily fit a conventional definition of a blue-green coalition, in some ways it transcends the prototypic labor-environmental coalition through its creative rearrangement of what types of labor organizations can become partners.

In this chapter I examine the formation of the SVTC and the development of its environmental justice framework. I begin with an exploration of its work in revealing the hidden hazards associated with high-tech and the importance of pursuing a local right-to-know initiative. This early victory of the SVTC set the coalition in motion to become a community and consumer watchdog organization. As the nature of the high-tech industry began to change and move overseas, the SVTC underwent a significant ideological transformation that shifted its purpose from being an anti-toxics organization to being a global leader in environmental justice. However, this transformation also resulted in a shift away from the local interests of the labor movement and a decline in its blue-green coalition qualities. In this instance, the shift in the economic and political environment in Silicon Valley forced the coalition to respond by modifying its purpose and identity to maintain the group's vitality in a new political environment. This shift in coalition identity is significantly different from what the Alliance for a Healthy Tomorrow and Work Environment Council have experienced, as both built a new coalition identity based on cooperation that led to new political opportunities. With the withdrawal of the SVTC's key bridge-brokering organization due to the shifting political environment, the common ground between its labor and environmental members became smaller, resulting in the dissolution of the formal nature of the blue-green coalition. Before examining how this process of coalition dissolution developed, I first review the political economy of the high-tech industry in Silicon Valley and the hazards associated with the production of semiconductors and other electronics.

High-Tech Hazards at the Point of Production

The process of manufacturing semiconductor chips is dirty but deceptive. Rather than billowing dark clouds of smoke, the toxic pollution from the semiconductor industry is hidden from plain sight—but it is just as deadly. A large amount of toxic chemicals are required to fabricate the tiny wafers that serve as the foundation of consumer microelectronic products. What the semiconductor manufacturing plants lack in visible smokestacks they make up for in leaky underground storage tanks where

excess chemicals and fluids are disposed of and with high exposures to workers on the production line.

In its simplest form, the production of semiconductor chips begins with the substance the region is named for—silicon. Silicon is melted at super hot temperatures while chemicals that include arsenic, phosphorus, and boron are added to enhance the electrical conductivity of the silicon. Once the silicon chips are formed, they are cleaned using a cocktail of toxic solvents, sulfuric and nitric acids, and other hazardous materials to ensure they are ready for the next step. The chip is then built up, microscopic layer by microscopic layer, in a process of exposing the chip to silicon dioxide and then washing away the unwanted parts with more acid. With each step, excess fluid is washed away and stored in underground tanks. In 1980 the California Department of Industrial Relations asked fifty-three semiconductor companies to provide details on the types and quantities of chemicals they were using in the manufacturing process. For the forty-two companies that responded, two million gallons of acids, 0.5 million gallons of solvents, and more than 0.5 million gallons of caustics were reported as used (LaDou 1984).

Although the image of a "clean room" is often associated with the production of microelectronics, most engineering solutions and personal protective equipment required in the manufacturing rooms are there to protect the chips—not the workers. Semiconductor chips are very susceptible to damage from microscopic specks of dust, necessitating ventilation and "clean rooms" where they are produced. Despite these protections for the chip, worker exposures and resulting illnesses are frighteningly common. In 1980 the California Department of Industrial Relations reported that workers in microelectronics suffered from 1.3 illnesses per 100 workers per year compared to 0.4 per 100 workers per year in general manufacturing. Of workers affected, 18.6 percent reported lost work time, compared to 6.0 percent for general manufacturing. Compensation statistics show that 46.9 percent of all occupational illnesses among semiconductor workers result from exposure to toxic materials, more than twice that in general manufacturing.

As a result of the collection of these 1980 data, semiconductor companies altered the way they record occupational injuries and illnesses, shifting the majority of illnesses resulting from toxic exposures to the category of one-time injuries (Bass 1984). In doing so, the semiconductor industry bureaucratically reduced the number of workers with chronic illnesses resulting from exposures to toxic substances by reporting them as single incidents, distorting the evidence of a larger trend of worker poisoning.

This technique produced a marked decline in the official total number of occupational illnesses. In 1981 workplace illnesses dropped from 1.3 to 0.3 per 100 workers without much visible change in the production process. Though these statistics suggest that workers in semiconductor manufacturing experience nearly three times as many illnesses from exposure to toxic chemicals, resulting in significant loss of time at work, little has been done to protect the health and safety of workers in this field (Mazurek 1999).

In the absence of traditional health-and-safety committees sponsored by unions, a number of alternative worker-oriented organizations formed to address the numerous toxic exposures associated with the semiconductor industry. One of these organizations, SCCOSH, was started in 1978 as a combination of two separate projects, the Electronics Committee on Safety and Health (ECOSH) and the Project on Health and Safety in Electronics (Pellow and Park 2002). ECOSH was a small group of labor activists, attorneys, and anti-toxics activists who wanted to raise awareness about the hazards of high-tech in the 1970s. It organized small workshops and classes as community outreach to make people in Silicon Valley aware of the hidden perils of high-tech. ECOSH's first success involved outreach to women, who were particularly vulnerable to toxic hazards in high-tech and who were the predominate workforce. After ECOSH distributed flyers in women's restrooms in the high-tech businesses and throughout the community, an outpouring of interest in addressing and preventing these hazards blossomed. With this boost in interest and support, ECOSH partnered with the Project on Health and Safety in Electronics to form SCCOSH and to work primarily on banning trichloroethylene (TCE) and empowering workers on the production line to improve their health and safety. As one of the early COSH organizations, SCCOSH received important financial support from OSHA's New Directions grant program in the late 1970s until that program was cut under the Reagan administration. Like the other COSHes that participate in blue-green coalitions, SCCOSH served as a bridge-brokering organization between anti-toxics activists and workers.

SCCOSH has two primary missions. First, it provides vital information and training to underrepresented workers in the high-tech industry. These services are crucially important in an industrial sector where the combination of minority workers and nonunion workplaces creates a vacuum of attention to occupational health and safety. SCCOSH helps workers to organize for health and safety, aiding those who lack collective representation in an industry largely indifferent to the plight of the individual worker. Second, unlike the other two COSHes analyzed in the previous case studies, SCCOSH has been very involved in legal battles on

behalf of sick or injured workers. SCCOSH aids workers in filing workers' compensation claims, wrongful termination claims, and toxic torts against some of the biggest manufacturers of microelectronics such as IBM. Other worker-oriented organizations, such as the Asian Immigrant Women Advocates (AIWA), have also attempted to fill the void in worker representation and in training with regard to health and safety.

Years before the toxics used in the semiconductor chip manufacturing plants became an environmental issue, these worker associations were fighting against a discriminatory and exploitative system of production that grew up overnight around San Jose virtually unchecked. When news of community and environmental exposure to the toxics associated with high-tech became publicly known, SCCOSH in particular was ideally poised to lead the growing fight against the big corporations' negligence and the state's lack of oversight.

Fighting Fairchild and Promoting the Right to Know

In 1981 the discovery of contaminated drinking water wells in neighborhoods surrounding the Fairchild Semiconductor plant shocked the region awake from the false dream of a safe and healthy coexistence with the semiconductor manufacturing business. On December 7, 1981, officials shut down a contaminated drinking water well just 2,000 feet from the Fairchild plant (Siegel 1984). Officials estimated that 14,000 gallons of 1, 1, 1-trichloroethane (TCA), a degreasing agent used to clean silicon computer chips, had leaked from the underground storage tank for a least a year and a half. An additional 44,000 gallons of other toxic waste materials had also contaminated the groundwater. As Dwight Hoening, a California state toxic substance control officer, later told the *Wall Street Journal* (August 29, 1984), "They don't make drums of oil, they make calculators.…And calculators don't get into your drinking water." Although at the time, the human health risks from exposure to TCA were unknown, its close cousin TCE was a suspected human carcinogen and known to cause liver cancer in test animals. TCA was actually substituted for TCE by many semiconductor manufacturing firms as a less hazardous industrial solvent. When informed of the leak, representatives from Fairchild claimed that the meter on the tank had malfunctioned and produced incorrect readings for several years.

The public, however, was not immediately informed of the contamination. It was seven weeks before a determined environmental reporter for the *San Jose Mercury News* broke the news to the residents of South San

Jose. When the Fairchild plant's neighbors learned of the spill, they quickly made an association between a cluster of cancers, birth defects, infant health problems, and fatalities (Pellow and Park 2002). Much like other victims of residential exposure to toxic waste, many community members of South San Jose engaged in "popular epidemiology" and began collecting their own data as there was no official public health study (Brown and Mikkelsen 1990; Edelstein 1988; Levine 1982). One woman, in particular, Lorrain Ross—whose daughter was born with a serious heart defect—took on the challenge of proving the link between the groundwater contamination and the neighborhood's alarmingly high levels of disease by going door to door to collect health information from neighboring families (Byster and Smith 2006).

In response to the fervor over the possible link between the so-called clean business of semiconductor manufacturing and the clusters of disease, two health studies were quickly carried out by the state, confirming the presence of higher than expected negative health outcomes while failing to identify a specific cause linked to the industry (Park and Pellow 2002). Undaunted, residents of San Jose started an anti-toxics movement and organized a series of community meetings that brought together plant workers, union members, public health advocates, firefighters, policymakers, and members of SCCOSH. SCCOSH, which had been working on issues related to worker exposure to toxics found in the Fairchild plant before this incident, quickly took on the challenge of forcing companies like Fairchild to take responsibility for their environmental hazards.

As a result of these meetings, SCCOSH developed a project that would later become the Silicon Valley Toxics Coalition, whose membership included community groups, labor unions, public health groups, and environmental activists, each concerned about the harmful health effects of the high-tech industry's negligence. San Jose resident and journalist Lenny Siegel (1984) credits the leadership of the Central Labor Council of Santa Clara County with providing the support for the nascent grassroots organization. Without the financial and organizational support of the central labor council, the new group would have lacked the resources necessary to operate a coalition.

Shortly after the Fairchild and IBM (discussed later in this chapter) spills created a public frenzy over toxic groundwater contamination in South San Jose, firefighters' associations from various cities in Santa Clara County proposed model ordinances to protect against future leaks from underground storage tanks (Siegel 1984). Along with the new presence of high-tech came new hazards to first responders and officials responsible who had to

either enter an emergency situation without knowing what substances they might be exposed to or respond to a spill and handle unknown substances. To reduce the likelihood of future leaks, the fire chiefs proposed a two-tier approach to the management of underground storage tanks that would require new tanks to be double-hulled, while existing tanks would only be closely monitored and replaced if found to be leaking. The semiconductor industry participated in the development of these proposals through their trade associations, while labor, environmental, and community groups were excluded from the process. This pattern is typical during fights for right-to-know laws across the country. Firefighters and other first responders were conceded to need access to information on toxics, while concerned citizens and activist groups were seen as simply seeking information to further their own special interests. Firefighters could choose to side with industry and create agreements allowing only certain officials to have access or side with the citizens' groups and see the larger picture of the public's need for basic information regarding their health and safety.

In protest, the SVTC marshaled hundreds of people to attend the public hearings required to pass such as ordinance (Wilmsen 2000). Holding placards reading "Fairchild or My Child?" and accusing city officials of siding with the manufacturer instead of the poisoned families, the SVTC and its supporters forced city officials and the fire chiefs to modify the proposed ordinances to include measures for public disclosure and protections for whistleblowers who informed community residents and public officials of future negligence or malfeasance (Siegel 1984). Initially, the public disclosure provisions were opposed by both industry representatives and the firefighters unions. Industry representatives claimed that "trade secrets" and other proprietary information would be revealed if the public had access to information regarding what chemicals were being stored on manufacturing sites. The firefighters feared that if a public right-to-know law was attached to the model ordinance, companies would falsify information to protect these secrets and thus jeopardize the safety of the firefighters responding to emergencies.

Eventually, through skilled negotiation and patience, coalition leaders were able to broker a deal with the Santa Clara County Fire Chiefs Association to include right-to-know language with some protection of trade secrets. Once this deal was negotiated, the firefighters—much like in New Jersey—became valued members of the coalition. One coalition leader reflects on their participation:

> The firefighters were very involved…because the firefighters were the first responders. They were the ones that had the most at risk

> with the mishandling of chemicals. At the time, they would get called in very, very frequently when there would be a chemical accident and a chemical fire or something like that.

The firefighters were a key partner involved in the growing labor-environmental coalition. In a region with very low union density, the firefighters union represented one of the few well-organized labor forces that had direct interaction with the manufacturing plants. Gaining their support for the public right-to-know provision, three years before the passage of the Superfund reauthorization that created the federal right to know, provided enormous political momentum to the Silicon Valley Toxics Coalition, ultimately leading to the right to access private information about environmental and worker exposure to the high-tech industry's toxic pollution.

Although the workers in the semiconductor manufacturing plants were nonunion, many of the contractors hired to perform maintenance and construction work at the plants were unionized. For example, the Communication Workers of America represented electrical contractors who performed maintenance and installation work throughout the area, crawling down manholes and risking exposure to toxic chemicals from leaking underground storage tanks. Vira Milirides, a spokesperson for CWA Local 9423, recalled a story from a union member who observed "toxins that had eaten clear through Pacific Telephone's heavy phone cables" and unintentionally tramped through a pool of toxics that had collected at the base of a fallen telephone pole (CWA 1984). This potential worker exposure to the same chemicals leaking from faulty storage tanks promoted the union to join forces with the SVTC and back the countywide double-hulled underground storage tank ordinance.

In addition to lending political support to the proposed legislation and sending their members to attend crucial public hearings, the CWA also provided financial support to the growing coalition. As part of their educational outreach efforts, the CWA funded a video documentary that focused on the workplace and environmental dangers of the high-tech industry. Entitled "Clean but Deadly: The High-Tech Industry in the Silicon Valley," the documentary produced for activist and educational purposes, provided graphic evidence of toxic hazards escaping the boundaries of the workplace and leaking into the environment (CWA 1984). One manufacturing employee interviewed in "Clean but Deadly" recalls his experience in the workplace:

> They were dumping a lot of chemicals down the drain while I was there. That was something that I was trying to stop. They didn't. They tried to get around this because it looked like a pretty expensive

> proposition to fix the scrubbers and things that would neutralize these chemicals. So it went into the water system and into the sewer system. And I am sure a lot of other people have been exposed.

This worker recounted his personal experience of exposure: "I have lost everything because of this injury. I have sustained liver damage, kidney damage, and I am going through emotional and brain problems…brain damage." Just as union members in New Jersey provided important testimony in support of the nation's first right-to-know law, these worker accounts of negligence in the manufacturing plants lent credibility to the claims of residents of South San Jose and anti-toxics activists working to clean up the groundwater and prevent further spills.

Shortly after the Fairchild groundwater case, a similar spill was discovered on the grounds of an IBM manufacturing plant in South San Jose, where thousands more gallons of toxics, including TCE, TCA, and Freon, had leaked from underground storage tanks. The IBM leak was the largest release of industrial solvents into groundwater in the United States and had been leaking since 1956. Together, the two leaks affected the drinking water of about 65,000 residents of San Jose. The SVTC organized communities across Santa Clara County to force the Environmental Protection Agency to investigate the area for further contamination. The EPA's subsequent investigation led to the identification of an estimated 1,200 underground storage tank leaks, with twenty-nine sites that were so polluted that they were placed on the National Priorities List of hazardous waste sites, making Silicon Valley the region with the most Superfund sites in the country (Byster and Smith 2006).

The discovery of the spreading specter of groundwater contamination from these leaking underground storage tanks galvanized local activist organizations into participating in the SVTC. Support from organized labor particularly grew in the mid-1980s, as the issue of toxic waste and high-tech captured Silicon Valley's attention. Seeing a potential organizing strategy previously unavailable due to the electronic industry's vehemently antiunion stance, the Santa Clara County Central Labor Council became an outspoken supporter of the coalition. According to a former president of the central labor council:

> It's happening all over. It's not as unlikely an alliance as people think. The same chemicals that are polluting the public's drinking water are affecting workers on the job. So if you take that part of labor concerned with toxics on the job and environmental groups concerned

> with toxics in the community, and if you define your goals clearly enough, I think you can get a lot of people to work together. (Siegel 1984, 12)

Due to the lack of worker organization in the manufacturing plants, employees were virtually unable to access any sort of health or safety information and were often berated for inquiring (Pellow and Park 2002). Unhindered by the lack of formal worker organizations, the SVTC and its partner organization SCCOSH used the increased attention to the issue of toxics to instruct interested workers about the dangers of toxic chemicals. Thus a reciprocal relationship between workers and environmental activists was formed. Workers could share their stories about actual manufacturing processes and negligence in the workplace, legitimating the claims of community activists and environmentalists working to place regulations on the high-tech sectors. In return, the environmental coalition partners could use their growing expertise on toxics to inform workers and provide basic training to improve their health and safety in the workplace. Without representation, however, the extent to which workers could challenge manufacturing practices was limited. And due to their status as mostly minority and immigrant workers, confronting the authority of line supervisors in the manufacturing plants was and remains a significant hurdle in the coalition's efforts to empower these workers.

Nonetheless, the formation of the Silicon Valley Toxics Coalition and its rise in popular support marked a shift in the political landscape of the region. The high-tech industry had developed virtually without government oversight or community watchdogs up until the Fairchild spill was discovered. The political and community organizing coordinated by the SVTC changed all that, and by 1987 the *San Jose Mercury News* had named the executive director of the coalition one of the one hundred most powerful people in the Silicon Valley. Given the political and economic power of the electronic corporations' CEOs, the fact that a grassroots activist with a labor-organizing background stood shoulder to shoulder with these giants suggests a significant shift in the balance of power. In 1983 Fairchild closed down its South San Jose plant and has since then spent nearly $40 million dollars cleaning up the groundwater contamination (Pellow and Park 2002). Other cleanup efforts continued to persist in the area after the closure of the Fairchild plant, becoming the major focus of the blue-green coalition's work in the late 1980s and early 1990s.

Although the Silicon Valley Toxics Coalition lacks the same level of union participation as the blue-green coalitions in Massachusetts and New Jersey,

the work of forging a joint identity between labor, community, and environmental organizations progressed with relative ease. As Pellow and Park (2002, 94) note, "the links between environmental pollution inside the plants and the impacts on the outside communities are crystal clear." The toxic chemicals leaking into South San Jose's groundwater were unmistakably byproducts of semiconductor chip manufacturing. Their presence, once discovered in the environment, was relatively simple for community residents, environmental justice activists, and labor organizers—as well as government officials—to test for and identify as escaping from the high-tech plants. Thus the task of linking health concerns of workers exposed inside plants and community residents concerned about environmental exposures required relatively little work on the part of coalition agents. What was challenging for the SVTC compared to the other coalitions studied in this book was the lack of strong worker representation to build on.

From the beginning of the coalition, the connection between workers, community residents, and environmental activists has been central to the organization. The coalition's former executive director, Ted Smith, said:

> [The] SVTC was founded in the wake of the Fairchild chemical spill, which created a lot of cancers and birth defects. We organized around that case and that's how the movement really got started. We started out as a project of SCCOSH and we were a spin-off. We discovered twenty-nine National Priorities List toxic sites and they are often in industrial areas where people of color, immigrants, and the poor live. This is environmental injustice and we have worked with SCCOSH to highlight these problems in the communities and in the workplace because the exposures are the same. (Pellow and Park 2002, 93)

In part, this fundamental connection between toxic exposures in the workplace and the environment is made possible by the lack of entrenched labor interests. Often health-and-safety organizing is of lower priority to major unions than wages, health benefits, and retirement plans. Unions that are willing to focus limited organizational resources on health and safety run the risk of failing to defend what are seen as core interests of labor. However, in the case of health and safety in the Silicon Valley, the only groups paying attention to the issues were largely peripheral to mainstream labor. Thus the issue of unions being subject to environmental job blackmail did not hinder the process of frame bridging simply because there were few unions for the high-tech corporations to blackmail.

For labor-organizing campaigns struggling to gain a foothold inside the manufacturing plants that had sprung up across Silicon Valley, the critique of the industry contained within the SVTC's collective-action frame offered a rare opportunity. Although SCCOSH and its various projects remained largely outside the sphere of mainstream labor, unions like the CWA and the United Electrical, Radio, and Machine Workers of America (UE) were eager to leverage the health-and-safety complaints of high-tech workers into a full-blown organizing drive. Since the SVTC was at the core of organizing against the major high-tech corporations, there was a natural bond between the unions and the anti-toxics organization. It was up to the coalition leaders to construct a collective identity and to assemble the individual interests into a single framework that would give purpose and direction to the newly formed alliance.

In defining the collective benefits of participating in the coalition, activist leaders like Ted Smith and Leslie Byster focused on high-tech manufacturing not being the clean industry it purported to be and that the semiconductor manufacturing process was laden with chemicals toxic to human health and the environment. As Smith is often quoted as saying, "they buried their smokestacks where no one would see them." These invisible releases of environmental pollution and the unchecked exposure in the workplace to similar, if not the same, toxics formed the common ground on which a collaborative solution could be constructed. The collaborative solution, however, was less clear. With a relatively powerless workforce and a politically powerful industry, making changes inside the workplace to prevent groundwater contamination was next to impossible. Just as they resisted early calls for industry-controlled reform, the SVTC leaders proposed a federal investigation of the manufacturing plants as a solution to the widespread problem of groundwater contamination and worker exposure. Since many of the groundwater contamination plumes spread beyond property boundaries, parties like IBM claimed that their responsibility and efforts should be cut off at the boundary line. An organizer in SVTC recalls:

> And in each step of the way there were lots of important fights. We went through a really significant challenge to the cleanup order before we were able to get a technical assistance grant. It had to do with how extensive was IBM's responsibility to follow that plume off site. See, that was a plume that went anywhere between three and five miles off site, depending on how you defined it. So it was a huge, huge issue.

One thing that is interesting in this specific case is the focus on bringing in a third party for oversight, namely the federal government, bypassing local and state officials. The involvement of a third party and the attempts to access what was seen as private information became the general battleground where the SVTC fought its first fight. This challenge to the private property rights of industry resulted in a powerful counterframing effort by industry associations to challenge the legitimacy of the SVTC's claim to being a stakeholder. The SVTC itself proposed to act as a watchdog organization, along with other environmental justice organizations that were forming in the greater San Francisco Bay Area, to make sure that the corporations were adequately addressing the public's concerns.

In order for diverse groups to find common ground with the new coalition, the leaders of the SVTC framed their new group identity around the growing fear of future exposure to contaminated groundwater and the growing distrust of the high-tech corporations. Local community residents were attracted to the coalition's underdog image of confronting huge corporations like IBM and the initial success against Fairchild. Because the SVTC partnered with SCCOSH, which by 1986 was filing lawsuits against several of the manufacturers on behalf of local residents and workers, potential adherents saw the coalition as an active contender in deciding the future of the Silicon Valley. Thus the motivation to participate in the coalition came in part because of the lack of any other environmental justice or anti-toxics organization in the area challenging big business. As I discussed earlier, labor organizations were motivated in a similar fashion to participate in the SVTC. At that time, very few unions had had any success in organizing plants, and any social movement organization taking on high-tech corporations and succeeding promised a productive partnership.

The leaders of the SVTC made a conscious decision early in the coalition's trajectory to focus their efforts regionally and to work upward, passing local ordinances that ideally would be adopted across the state. Rather than lobbying directly in Sacramento, the state capital, the SVTC invested in local politics with the strategy that if enough cities and counties passed legislation to protect workers and communities the state would eventually be forced to follow suit. The coalition's longtime executive director stated in 2005:

> But the imbalance of forces right now I think is so strong that if we tried to start in Sacramento we'd get creamed by the electronics lobbyists up there. So it's a perspective that I think is shared fairly

> widely among environmental justice groups, among activist groups of all kinds, that Sacramento is just not a very favorable playing ground. Partly it's because we've had Republican governors now for sixteen years, so even if you get something through the legislature, it would get vetoed. And the legislature itself hasn't been very strong on a lot of these kinds of issues.
>
> Maybe, if that continues to change more favorably, people will rethink this. That's largely been the political landscape since 1984.

This perception that the coalition's goals were better accomplished at the regional level is a clear example of the limiting effect of political opportunity structures on coalition framing. Though the high-tech industry is historically based in the Silicon Valley, other light industries throughout California pose similar threats to public health and the environment. Rather than risking the coalition's limited organizational resources lobbying a conservative state legislature, coalition leaders decided to limit the scope of the organization—at least in the beginning—to addressing toxic pollution in the Silicon Valley.

Resources for the coalition were drawn initially from SCCOSH and then later from several small grants that allowed the coalition leaders to work full time on developing the organization. The central labor council also contributed funding, though local volunteers donated their time to go door to door and inform people about upcoming meetings and events. The coalition remained relatively small in scale and focused its efforts on regional organizing, thus conserving what limited resources it possessed for specific goals.

The anti-toxics organizing spearheaded by the SVTC in the 1980s eroded the immaculate image of the high-tech industry, particularly in the manufacture of semiconductor chips. In a field seen as the future of American industry, labor and environmental critiques prior to the discovery of hidden toxic threats in the groundwater did not make major inroads in challenging the political power of corporate interests. The formation of the blue-green coalition in the Silicon Valley altered this political landscape, allowing worker-oriented activist organizations like SCCOSH and anti-toxics–environmental justice activists to catapult themselves into becoming legitimate stakeholders in high-tech manufacturing. Although the initial bridge linking labor and environmental interests in the coalition was immediately clear, the SVTC's coalition collective-action frame shifted as a part of a broadening of the coalition's purpose beyond the right to know and groundwater contamination.

Just as the SVTC was becoming a successful anti-toxics organization in the Silicon Valley, a major grassroots environmental initiative was taking shape. Proposition 65, also known as the Safe Drinking Water and Toxic Enforcement Act, mandated that a warning be placed on any product containing chemicals known to pose a significant risk of causing cancer or birth defects. California has a unique system of electoral propositions, which are voted on directly by the public and become law without going through the state legislature. Although propositions have a history of being challenged in the courts, they have become an important way to create regulation in California. Prop. 65 applies to a host of products, including consumer products, workplace substances, and industrial emissions. In addition to its reporting requirements, Prop. 65 requires the governor to publish an annual list of chemicals known to the State of California to cause cancer, and it gives citizens the right to file lawsuits directly against polluters.

The SVTC became involved in the statewide mobilization to pass Proposition 65, since the information-based initiative resonated well with the coalition's initial collective-action frame. As the statewide campaign traveled across California, the political debate surrounding the controversial proposed law reached the Silicon Valley. In the middle of an election year, the senatorial debates in the region focused in on Prop. 65. The Republican candidate, a former high-tech CEO, came out against Prop. 65, claiming that increased regulation would burden the industry with additional costs. His Democratic opponent seized on Prop. 65 as the environmental regulation of the year and mobilized enough support based on his environmental position to be elected.

The implementation of Prop. 65 after it passed required semiconductor manufacturers to inform their workers of the hazardous substances they were using, including chromium, arsenic, and lead. After the SVTC had worked to win the right to know, which requires community activists and workers to request information from industry, Prop. 65 additionally required that the high-tech industry take responsibility for communicating information about risk. Activists in the SVTC found this element of the law particularly exciting:

> What Prop. 65 did was to try and institutionalize what is now thought of as the precautionary principle, which says kind of the opposites, which is that if there is potential that exposure to a toxic substance can cause a health or environmental problem, then the burden is on the entity that is causing that exposure to do something about

> it, unless they can show it's really not a problem. So it completely switches the whole thing around. (Wilmsen 2000, 32)

The success of Prop. 65 gave environmental and worker organizations in California a powerful tool to make industry provide health warnings on their products and substances and for themselves to file lawsuits as legitimate stakeholders. The passage of Prop. 65 significantly altered the political environment in which the SVTC was operating. In combination with the recently won right to know, the reporting requirements of Prop. 65 gave activists an important foothold in their struggles with the high-tech industry. With high-tech companies and their associations threatening to form their own countermovement to resist the SVTC, Prop. 65 came as a bonus that maintained the coalition's momentum in a changing political environment. Much of the SVTC's efforts during the maintenance stage of its life course focused on using information-based strategies to monitor the cleanup of contaminated groundwater and to inform consumers about the hazards of high-tech.

Cleaning Up the Silicon Valley and Developing an Environmental Justice Frame

Operating now as a successful blue-green coalition, the SVTC set about monitoring the cleanup of the numerous Superfund sites spread across the San Jose area. The coalition maintained an active interest in the efforts of its sister organization, SCCOSH, and provided support for worker training and education. The bulk of the SVTC's activities, however, were directed at expanding community involvement in the cleanup of Superfund sites.

In 1990 the SVTC received a technical assistance grant from the EPA as part of the Superfund program. With this financial assistance, it was able to facilitate public participation in the cleanup activities by contracting with consulting firms to gather independent data and to review the government's reports. This boost in organizational capacity allowed the SVTC and its member organizations to be actively involved and to press the EPA to shorten its proposed timetables for many of the site cleanups (Wilmsen 2000). In the process of engaging community members in the remediation efforts, the SVTC discovered that many of the contaminated sites were located in poor and minority neighborhoods with little community organizing to draw upon. Furthermore, in these communities of color and poverty, cleanup was happening much more slowly than in the

white and affluent neighborhoods located only a few miles away. Concerned with these environmental inequalities, the SVTC began developing organizational resources tailored to the needs of minority communities. In particular, it was faced with the challenge of translating the Superfund information and data into languages other than English. Ill-prepared organizationally to handle these minority-based issues, the SVTC was forced to rethink its organizational mission and collective-action frame to include the major problem of environmental injustice in the Silicon Valley.

In another challenge to building a cross-movement coalition, the SVTC's loyalties to the labor movement in the Silicon Valley were tested in the early 1990s when a protest organized by peace activists threatened to divide labor and environmental interests (Gottlieb 1993). Besides microelectronics manufacturing, the Silicon Valley is also home to a number of military contractors, including United Technologies, which produced part of the Trident missile system. Peace and antinuclear groups organized a protest demonstration to be held directly outside the unionized plant's gates. As part of the larger progressive activist community in the Bay Area, the SVTC had agreed to participate in the protest along with a number of other organizations and coalitions. However, the SVTC was unaware of the protest's location. When word reached the local union at the plant that the SVTC, which had received much attention for working with labor groups in the past, was going to be a part of a protest outside the gates of a union plant, the president of the local angrily phoned the SVTC's director. At issue was not the peace organization's decision to protest the manufacturing of missiles but the group's selection of a single manufacturing plant as the target.

As a blue-green coalition, the SVTC did not want to enter into a conflict with one of the few labor unions in the region. It took the issue to the Santa Clara County Central Labor Council, which had been an active member and founder of the coalition, to try to mediate between the peace activists and the labor local. In acting as a bridge-brokering organization itself, the SVTC was able to reach a solution—hold the protests outside the corporate offices of United Technologies instead of outside the plant. By preventing a conflict between the labor union and the SVTC, the bridge brokers within the coalition prevented a frame dispute from developing. In a political environment with a growing countermovement, alienating a union because of a peace protest could have divided labor and environmental interests.

Following the passage of the federal right-to-know provisions in the Superfund Amendments and Reauthorization Act of 1986, information

on the environmental release of certain chemicals and substances was made public through the Toxics Release Inventory (TRI). The SVTC, which had done grassroots organizing for the act, quickly put the newly acquired information to use. By 1988 the coalition had developed a citizen's guide to using TRI information to empower its members to begin conducting their own research into the pollution released from high-tech corporations in their neighborhoods.

One of the first findings produced from these reports and compiled by the SVTC focused on chlorofluorocarbons (CFCs). Although the SVTC primarily focused on the link between health and toxic chemicals, the TRI information revealed that corporations like IBM were releasing millions of pounds of CFCs. The Montreal Protocol, which had been signed a few years earlier, dealt with the detrimental effects of CFCs on the ozone layer. This new information set off another round of media attention to the environmental externalities associated with the manufacture of semiconductor chips. Although IBM initially condemned the SVTC for demanding that they eliminate the release of CFCs during the manufacturing process, by 1989 they had agreed to completely phase out all CFC use within five years. IBM, however, did not require the full five years to phase out CFCs. In a matter of a few years, IBM discovered a safer alternative to CFCs—soap and water.

The TRI data also revealed that millions of pounds of toxic substances were legally being released into the environment and openly reported by their producers. The TRI gave the SVTC the ability to act on the right-to-know laws they struggled to establish during the campaign against Fairchild. The SVTC utilized the TRI data primarily to seek environmental justice, documenting which areas of San Jose were exposed to the highest level of contamination and finding a disproportionate impact on economically disadvantaged and minority communities. Though the SVTC had already discovered this during its efforts to monitor the cleanup of the contaminated groundwater, the TRI data supported it.

Ban Toxics, Not Workers

In 1986 the Digital Equipment Corporation (DEC) released a study that found that female workers in its Hudson, Massachusetts, manufacturing plant experienced nearly twice the average rate of miscarriages. In the first epidemiological study of its kind, the link between exposure to toxics in the workplace and reproductive health was made very clear. These

shocking data prompted both public outrage and corporate action. AT&T, one of the largest producers of semiconductors at the time, announced a policy barring pregnant women workers from the production line (Pellow and Park 2002). Soon other companies followed suit and adopted what became known as "fetal protection policies."

A debate over discriminatory employment practices in regard to women's advancement in the workplace had been underway for years. The DEC study and AT&T's quick action created a shift in the political opportunity structure governing the behavior of the high-tech corporations. Headlines covering the story read "Pregnant Workers Can't Work in Clean Rooms," contrasting the image of a "clean room" with the health risks to the workers on the production line (Wilmsen 2000). The SVTC developed the Campaign to End the Miscarriage of Justice to seize on the political opportunity. This campaign called for the phaseout of certain classes of chemicals that were known reproductive hazards rather than the phasing out of reproducing women. One of the slogans espoused by this campaign was "Ban Toxics, Not Workers." Working in collaboration with a number of grassroots and national environmental organizations, the SVTC challenged the high-tech industry's decision to discriminate against women while continuing to allow men to work in a toxic environment. Along with SCCOSH, AIWA, and other organizations in the Silicon Valley, the SVTC threatened to lead a boycott of all chip manufacturers if the hazardous substance in question, glycol ether, was not phased out within a year (Pellow and Park 2002).

Although labor's direct participation in the coalition had begun to decline during this period, the Campaign to End the Miscarriage of Justice received strong political support from the Communication Workers of America. The CWA gave a series of press releases about discriminatory workplace policies that received public and legislative attention outside the SVTC's sphere of influence. Women's workplace rights have long been a mainstay of the labor movement, and the discriminatory impact of fetal protection policies was no exception to their concern. Although the CWA officially represented only a small number of semiconductor manufacturing workers, its history with the SVTC during the Fairchild organizing campaign served as a bridge to this new issue. Coalition leaders believe that the CWA stepped outside the traditions of mainstream labor in lending their support:

> We had seen from the early days that it was important to try and get the attention of organized labor to some of these issues, because we thought we needed allies and that most of the unions took basically

> a defeatist attitude, that the industry was too strong. The few cases of organizing drives had gotten crushed, and so they kind of took a hands-off position. At least CWA was willing to do some things to help support some of these campaigns.

The direct contribution of the SVTC's Campaign to End the Miscarriage of Justice is unclear, as in 1991 the U.S. Supreme Court declared that gender-specific exclusionary policies were illegal and constituted discrimination under Title VII of the Civil Rights Act (Morello-Frosch 1997). Though the SVTC's campaign cannot be solely credited with forcing industry to reverse their discriminatory practice, given the significance of the Supreme Court case, the slogan "Ban Toxics, Not Workers" solidified the coalition's commitment to functioning as a blue-green coalition.

As the SVTC's core mission began to grow beyond monitoring the groundwater cleanup from leaking underground storage tanks, their connection to the Campaign to End the Miscarriage of Justice had a formative effect on the coalition's growth. The blatant discrimination against women in the workplace was emblematic of other forms of discrimination, particularly environmental discrimination that placed communities of color and the poor at greater risk of exposure to the toxics associated with microelectronics. Combined with the SVTC's adaptation of the Toxics Release Inventory into its collective-action toolbox and the ability to measure the disproportionate impact on minority populations, this new emphasis on discrimination and inequality turned the coalition from a watchdog organization to a leader in environmental justice.

Between its formation in 1982 and 1990, the SVTC's coalition identity underwent a significant transformation. The SVTC's initial frame focused on the common risk of toxic exposures in the workplace and environment. The prognosis for these shared problems emphasized community and government oversight of the high-tech industry and stressed the role of worker and community empowerment. As such, the years following the coalition's formation were dedicated primarily to doing just that—using the power of the right-to-know law to gather data for monitoring the cleanup of the Superfund sites. However, as the coalition became involved in the collection of data and subsequent campaigns, the scope of the initial problem identified by its collective-action frame broadened. As corporations and the state took actions to begin the process of cleanup, key inequalities in the process were uncovered. Communities of color were the last to receive attention from the state in the cleanup process, even though these communities suffered a disproportionate impact in the very location of the Superfund sites (Pellow and Park 2002; Szasz and Meuer 2000). Minority workers were

discriminated against at work. Immigrant women continued to dominate the most hazardous jobs, and then corporations began banning women from certain jobs to reduce the risk of harm to their reproductive health. As these new issues came to the forefront of the SVTC's work on toxics, new political opportunity structures began to coalesce.

The interaction between these developing political opportunities and the limited organizational resources caused the SVTC to rethink its core mission and to challenge the high-tech industry's practice of discrimination. According to an organizer at the SVTC:

> We decided that we needed to get some more specialized staff. We decided that we needed to try to break through into some larger funders, both in terms of foundations as well as in terms of individual major donors.... The actual amount of money going to the core budget of the Toxics Coalition was still pretty thin. And we decided that we needed to staff these programs that we had defined as what we wanted. (Wilmsen 2000, 113)

In order to fill these new specialized staff positions and to focus on the new issues, the core leadership of the organization went into retreat in 1995 and developed a new collective-action frame. According to Snow et al. (1986), this process of revisioning took the shape of frame transformation, altering the core elements of the coalition's collective-action frame so that it resonated better with new populations of potential adherents and strategically aligned the coalition with new political opportunities. While I argue that the other two coalitions examined in the book engaged in frame modification—meaning that slight alterations to the coalition's identity occurred—in the early 1990s, the Silicon Valley Toxics Coalition went through a major identity transformation. Growing beyond an anti-toxics organization, it incorporated environmental justice as a core value, thus significantly altering the core elements of the frame. This frame transformation altered the coalition's mission and eventually resulted in the dissolution of the coalition partnership between labor and environmental organizations.

Thinking Globally, Acting Locally

Part of the transformation of the SVTC's identity as a coalition involved a broadening of its geographic focus. By the early 1990s the production of semiconductor chips had begun to move out of the Silicon Valley and

overseas as firms sought more favorable economic conditions with cheaper labor and fewer environmental regulations. Along with exporting many of the production line jobs associated with the production of microelectronics, corporations also exported the occupational and environmental health problems originally addressed by the SVTC, SCCOSH, and other organizations (Pellow and Park 2002). In the search for lower costs and higher profits, the high-tech industry has pitted regions and countries against one another in a race to the bottom in terms of labor costs and environmental regulation (Smith and Byster 2006). Thus the globalization of the high-tech industry in the early 1990s led to a globalization of the problems the SVTC was formed to address.

As a result, the SVTC chose to broaden its scope to raise public awareness, expose corporate malfeasance, and to resist the new global costs of a globalized high-tech industry. One of its first campaigns in response to this trend was to launch a national network called the Campaign for Responsible Technology (CRT). The CRT was an expression of the concerns of communities and organizations across the country about the environmental and health costs of the high-tech industry. In other regions where high-tech had developed, though to a lesser extent than the Silicon Valley, such as Massachusetts and New Mexico, community organizing had a similar trajectory to that of the SVTC (Fox 1991). Labor unions in those states and throughout the country participated in an effort to challenge the antiunion stance of the high-tech industry and to promote worker safety and health in the development of new technologies. The CRT's first coordinator was actually a former CWA organizer.

To help maintain the global competitiveness of U.S. high-tech firms, the industry formed the research consortium SEMATECH (Semiconductor Manufacturing Technology) and received funding from the government to develop new technologies. The SVTC saw the formation of SEMATECH as an opportunity to become involved in the future of the high-tech industry (Wilmsen 2000). The CRT's first project was an attempt to leverage the fact of public funding of the high-tech industry to achieve the development of cleaner products. In 1992 the CRT persuaded Congress to expand the mission of SEMATECH to include developing cleaner production and directing that 10 percent of the corporation's federal funding be spent on developing safer alternatives. Faced with the prospect of losing the entire source of research funding if interest groups chose to challenge a project, the CEO of SEMATECH gave in, acknowledging that "they were not just environmentalists, but also labor, and social justice activists. That made it especially hard for us to deal with them" (Smith and Byster 2006).

This initial victory of the Campaign for Responsible Technology demonstrated to coalition leaders that taking on the high-tech industry beyond the borders of the Silicon Valley was a viable strategy. In many ways, the success of the CRT set in motion the final frame transformation of the SVTC. As the CRT developed, the SVTC became more involved at the national level and began working with similar environmental justice organizations, such as the Southwest Network for Environmental and Economic Justice. The high-tech industry's disproportionate impact on minority communities became an important focal point for the emergence of Native American and Latino environmental justice organizations in the Southwest. Through its participation in and leadership of the CRT, the SVTC became more heavily involved in the growing environmental justice movement. One of the organizing strategies to emerge from the CRT's emphasis on environmental justice was a call for increased worker and community participation in decisions involving high-tech, in order to empower disadvantaged minority populations. The CRT began demanding "good neighbor agreements" with several corporations, requiring institutionalized forms of participation for workers and community residents in decisions affecting their livelihoods.

By 1995 the SVTC had reached a crossroads. Its grassroots work begun in the Silicon Valley required it to direct its organizational resources to local concerns with safety and health. At the same time, the high-tech industry that it had been watching over was rapidly expanding beyond the borders of the Silicon Valley and moving its manufacturing plants overseas. Acting as a global watchdog of the high-tech industry required the coalition to divert some of its resources to fighting corporations on a much larger scale. The two competing forces pulled the coalition apart. In a strategic decision, the SVTC's board of directors decided to develop a set of programmatic areas of expertise that would dictate the future of the coalition. Four key programmatic areas were developed: the International Campaign for Responsible Technology, the Clean Computer Campaign, the Sustainable Water Program, and the Health and Environmental Justice Project.

Together these four projects constituted the primary goals and organizational structure of the coalition. However, not all of the coalition's organizational resources are distributed equally among the different programmatic areas. Most of the coalition's resources are directed toward the International Campaign for Responsible Technology (ICRT) and the Clean Computer Campaign (CCC). The SVTC has become the leading U.S.-based organization in a global fight for sustainability and corporate accountability in the high-tech industry. Moving beyond the high-tech

industry's environmental and social impact in the United States, the CRT has evolved into the International Campaign for Responsible Technology. The coalition's global leadership is solidified around the cutting-edge work involved in the ICRT and CCC. The SVTC has led consumer campaigns against companies like Dell and Apple, demanding that the corporations take responsibility for the products they create by developing free recycling programs. As global crises continue to emerge surrounding the disposal of consumer electronics in the third world, the SVTC sees itself ideally suited to bring these corporations to justice by forcing them to adopt "takeback" and recycling programs.

The coalition's success in these global campaigns has come at a cost that is recognized by the coalition's leaders. One of the main costs has been a shift away from grassroots involvement in worker health and safety. Although the Clean Computer Campaign ultimately has an impact on worker health by eliminating a few of the toxic exposures used in the production process, the emphasis of the campaign is on "end of life" issues of disposal and recycling of used consumer electronics. The primary vehicle for addressing the connection between environmental and worker exposure to toxic substances has been the Health and Environmental Justice Project (HEJ Project), which has suffered from a lack of stable leadership and funding.

The HEJ Project was intended to have three overall goals: to empower community residents and workers with information on toxics, to work with the local health department to recognize the link between toxics and health, and to work with local companies to improve their health and environmental performance. In comparison with the other projects, besides suffering from staffing and funding, the HEJ Project lacks focus. But what it lacks in clarity, it makes up for in innovation in application. Because the SVTC began as an anti-toxics grassroots organization, it has a well-developed strategic toolbox with which to engage in community organizing. Many of the core populations that HEJ is targeting are the same poor and minority neighborhoods identified as an organizing priority in the early 1990s. Thus the environmental justice concern with local issues in the Silicon Valley in the late 1980s and early 1990s is today relegated to the HEJ Project.

One of the innovative organizing strategies implemented through the HEJ Project is the Family and Community Environmental School (FACES), which targets low-income immigrant women working in the high-tech industry. Lacking union representation, these community members lack the education and training that the SVTC believes is necessary to take

action in the workplace and community to reduce toxic exposures. Since the SVTC cannot enter the workplace to do direct training, the HEJ Project attempts to do worker health-and-safety training in the communities in the San Jose area. Other related projects include translations of the SVTC's fact sheets, including a serialized comic called "The Cost of Living," which presents a graphic story of an immigrant family's experience of living and working in the toxic high-tech industry. The SVTC is working in a similar fashion as SCCOSH and AIWA, as an alternative labor organization offering education, training, and empowerment to workers lacking official union representation. Thus the SVTC is trying to fill the void of lack of organized labor on their own, rather than working in collaboration with a union like the CWA to help them organize in the high-tech sector. This lessens the benefit that might be had from actual labor organizations participating in the coalition.

Although the HEJ Project has experienced some success, it is the lesser project of the SVTC's four programmatic areas. The frame transformation to an environmental justice organization in the early 1990s set the SVTC along the path toward becoming a leader in the global environmental justice movement. The frame alignment strategy of frame bridging was no longer relevant for the coalition, as it was forging ahead into entirely new developments. As the lead nonprofit organization in the United States working on issues related to high-tech, the SVTC has become the originator of an entirely new discourse and is therefore no longer strategically positioned to bridge to other frames. The coalition stands at the forefront of redefining how an environmental justice organization addresses issues of social, economic, and environmental inequality on a global scale. However, this transformation has shifted the coalition's organizational resources away from the grassroots level—where blue-green coalition building flourishes. Thus the SVTC is no longer a blue-green coalition on the same level as the previous two case studies. The SVTC's relationship with its previous worker-organization partners such as SCCOSH and AIWA has declined, though they continue to maintain an affiliation with these types of organizations. The dissolution of the partnership between labor and environmental organizations under the umbrella of the SVTC came about because of the broadening of the collective-action frame.

However, I believe to view the SVTC as a failed blue-green coalition is a mistake. More so than the other two coalitions examined in this book, the SVTC operates in a complex and fragile political environment that is heavily influenced by the neoliberal globalization of the high-tech industry. The major shift in the high-tech production regime in the early

1990s changed the very nature of work in the high-tech industry. Whereas the Massachusetts Alliance for a Healthy Tomorrow and the New Jersey Work Environment Council interact with a stabilized labor movement, the SVTC's relationship with worker organizations looks very different. Although the formal dissolution of the labor-environmental partnership locally in the Silicon Valley places the SVTC in the dissolution stage of my model of a coalition's life course, its current evolution as a global leader in high-tech and environmental justice suggests that the coalition continues to exist in alternative form.

Coalition Dissolution

The SVTC is a classic example of a local anti-toxics organization experiencing much initial success that leads to a broadening of the organization's goals and identity. However, in the process of expanding beyond the borders of Silicon Valley, the coalition lost much of its attractiveness to local labor organizations. This is not to suggest that the SVTC's collective-action frame shifted away from concerns with worker health and safety. Rather, by following the globalization of the high-tech industry beyond the Silicon Valley, the SVTC is addressing both workplace and environmental health issues at the global level. Its labor partners, unfortunately, are less able and inclined to develop such a broad vision. In a region where union organizing remains nearly impossible, local labor leaders must invest their limited resources in strategic collaborations that benefit the union. When the SVTC is working primarily on global campaigns, union leaders may see less of a benefit to themselves of being a member organization on the local level.

Though the SVTC continues to flourish as an environmental organization, the labor-environmental collaboration that characterized its formative years has dissolved. As I have argued, this coalition dissolution came about through the transformation of the SVTC's coalition collective-action frame. The transformation from a local anti-toxics and watchdog organization to a global leader in high-tech accountability and sustainability has broadened the coalition such that local workplace issues in the Silicon Valley have become less of a priority for the SVTC. Although health-and-safety issues associated with the high-tech industry remain central to the coalition's identity, the SVTC has shifted the focus of their efforts and campaigning to a broader scale. The SVTC has incurred resource costs along with this frame transformation, largely in the form of

support from local labor organizations. The CWA no longer invests its time on the board of the SVTC. Nonlabor organizations like AIWA and SCCOSH have also become peripherally involved at best. SCCOSH too is losing support from local organizations after a protracted legal battle with IBM. In 2003 two former IBM workers with cancer filed the first toxics suit against IBM over their exposure to toxic substances in the workplace and the concealing of medical evidence of the harm being done to them. Though IBM ultimately denied responsibility for their workers' illnesses, they settled the lawsuit out of court. SCCOSH's investment in the legal strategy, however, has created a rift similar to that between the SVTC and local labor organizations in the Silicon Valley and reduced the organization's role in local health-and-safety issues.

This environmental justice organizing in the Silicon Valley took on larger challenges than the other two organizations studied in this book. The SVTC's early success is largely attributable to the involvement of both organized and unorganized labor groups that were brought into the coalition through the process of frame bridging. In linking the occupational health-and-safety concerns of workers in the semiconductor plants to the community residents' fear of toxic poisoning from contaminated groundwater, the SVTC and its former founding organization SCCOSH created a politically powerful and cohesive coalition of community, labor, and environmental individuals and organizations. This coalition changed the face of the Silicon Valley and brought state oversight to the high-tech manufacturing process. But as chip manufacturing began to leave the San Jose area for less-regulated locations in the developing world, the SVTC realized that fighting corporations like Fairchild and IBM was not enough to ensure that future generations would not be exposed to the toxics associated with high-tech. In order to continue fighting corporate malfeasance and continue calling for more accountability and community involvement, the SVTC transformed its coalition collective-action frame and incorporated a global prognostic element while maintaining a core value of health and safety. This frame transformation significantly altered the motivational aspects of participating in the coalition by attracting a new host of environmental justice organizations from across the globe, but at the same time it decreased the benefits of participation for struggling labor organizations in the Silicon Valley. Thus the dissolution of the partnership between labor and environmentalists in the SVTC came about through the strategic process of frame transformation.

Though the SVTC is ultimately representative of a failed blue-green coalition because of the dissolution of its bond with labor, the coalition

is an excellent example of developing an innovative nonunion worker-grounded approach to blue-green coalition building based on health concerns. In the absence of a strong labor movement with invested interests in health and safety, the health-based framework created a new type of network based on worker organizations in the community. The SVTC's ability to develop relationships with organizations on the periphery of the labor movement represents a significant development in the overall accumulation of possible forms of blue-green coalitions. In an industry with little oversight from labor or environmental interests early on, the SVTC developed and institutionalized a globally based watchdog movement grounded in both labor and environmental fears about the toxics associated with high-tech. The coalition initially developed as a result of the frame bridging between occupational health and environmental health concerns in the Silicon Valley and set in motion a number of cleanup efforts and environmental justice groups organizing to address the environmental health hazards produced by high-tech. Though the connections between occupational health and environmental health lessened over time, the SVTC's involvement in the global environmental justice movement compliments the other examples of blue-green coalitions.

Although I use the SVTC as representing coalition dissolution, in some sense the coalition needed to fail in order to reinvent itself in a new economic and political environment. With the outsourcing of semiconductor manufacturing and the shift to small-scale flexible light production in the Silicon Valley, the potential for an enduring labor-environmental relationship in the formal sense was severely undercut. Whereas labor unions like the CWA had been struggling to launch organizing campaigns in the high-tech industry and thus were looking for partners like the SVTC prior to the shift, in the contemporary production regime there is little room for traditional labor organizations. Thus the failure of the SVTC as a blue-green coalition is less a function of failed campaigns than of economic and political restructuring. The SVTC's ability to navigate these shifts and reemerge as the global leader in challenging the high-tech industry and as an important environmental justice organization is a testament to the creativity of its leaders. Thus the SVTC's life course is an important example of adaptability and creativity, which in the larger context of labor-environmental relations in the United States only adds to the repertoire of possible coalitional forms that may lead to enduring alliances.

5

Finding the Connections

Defending one's health and the health of one's family is a powerful motivator for collective action. It drives parents to shield their children from potential harm and community groups to organize to oppose the siting of hazardous waste in their backyards. Though some workers may be willing to accept certain levels of risk in exchange for higher compensation for their labor, many industrial labor unions have made health and safety a priority on a par with wages and benefits. The three coalitions examined in the previous chapters each found some way to make health a common ground between workers and environmentalists in order to accomplish what neither group could on its own. In this chapter I examine the ability of health-based interests to bring together diverse constituencies and create enduring blue-green coalitions. Health acts as a master frame that provides leaders of blue-green coalitions with a common language that can be used to engage labor and environmental organizations in a discussion about developing a common agenda. In order to understand the significance of health-based blue-green coalitions, I contrast and compare the three case studies and explore how health is used to overcome ideological differences and past stereotypes regarding the relationships between labor and environmental organizations.

Though the three blue-green coalitions operate in somewhat similar political and structural contexts, there are significant differences that affect both the process of coalition formation and the development of additional

campaigns. In particular, the context of political opportunity structures is unique to each coalition. There are differences in the various types of organizations that are potential participants in the coalition. And there are differing coalition tactics. In addition, there are also significant differences in the level of union power and the type of industrial sector challenged by the coalitions. These dissimilarities suggest how political context and organizational resources enable and constrain both the formation of blue-green coalitions and their potential for political success. Despite these differences, a similar pattern emerges in how each coalition attempted to construct an identity that resonated with the individual partner organizations. Each coalition pursued a similar framing strategy to promote their agendas, building on the primacy of health in motivating individuals to act and organizations to partner.

Constraints on Coalition Formation

Though health can act as a powerful motivator, its utility as one is often limited by constraints on the actions of both labor and environmental organizations. Both political and economic factors can limit the ability of organizations to realize and act on the common ground that health provides. Political opportunities, organizational structures, and coalition tactics all help explain variations in the formation and trajectory of the blue-green coalitions examined here. The previous three chapters have provided numerous examples of the contextual differences in the political and organizing environment in which the coalitions developed. Despite these differences, however, the coalitions developed very similar organizing strategies in their approach to bridging the divide between the labor and environmental movements. First, it is important to examine the contextual differences with specific attention to the effect of political opportunities on the formation and political success of the Alliance for a Healthy Tomorrow, the Work Environment Council, and the Silicon Valley Toxics Coalition.

The political environment in which each of the coalitions operates is influenced by variations in the state structures, the presence of political allies, and the presence of political opponents. Though the coalitions operate in relatively similar political environments and have benefited from socially minded political regimes in power at key moments, there are important differences in the configuration of political opportunities that help explain how the coalitions developed and why some campaigns

were more successful than others. McAdam (1996) defines the "open" or "closed" nature of political opportunities as the degree of access to which groups have to sources of political power and influence and the propensity of those sources to respond favorably. In the context of the blue-green coalitions, political power is largely defined in terms of an ability to influence regulatory and legislative outcomes. The relative "openness" of political opportunity structures available to the three coalitions varies along a spectrum, with the WEC enjoying the greatest degree of openness, the AHT a more moderate degree, and the SVTC furthest toward a closed political environment.

Due in part to the WEC's affiliation with the union that represents employees of the New Jersey State Department of Environmental Protection, it profits from a somewhat favorable relationship to the state administration—though this relationship has been tenuous over time. Thus the WEC, unlike the other coalitions, often works to push the state to adopt regulatory policies that do not require legislative endorsement. This tactic allows the WEC to employ direct-protest activities to promote their campaigns, rather than relying solely on legislative initiatives that depend on members of the coalition calling their local state representatives to encourage their support of a particular bill, as is the case with most of the AHT's activities.

The AHT, which shares a similar level of support from Democratic State legislators in Massachusetts as WEC does in New Jersey, does not benefit from the same degree of openness between itself and the State Department of Environmental Protection. Even though the state agency TURI acts as a foundation for much of the work of the AHT, the coalition's strategic goals are very much focused on a legislative letter writing type of campaign. Past legislative efforts of the AHT have been blocked at the last minute by shifts in the allegiances of key state representatives and threatened by vetoes from the governor. Although the legislature is generally open and responsive to policy initiatives from community groups, there is a strongly party-based system in the government of Massachusetts that limits access to the system. Political opportunity structures are less available to the WEC, so that it has to focus on building a broad base of grassroots support for its legislative campaigns.

Leaders at the SVTC made a strategic decision at the onset of the coalition's formation to refrain from becoming involved in California state politics. In part due to the political influence of the high-tech corporations and the invisible nature of the not-so-clean side of the industry, SVTC leaders chose to focus on local and regional initiatives as their best

options for success. Despite Democratic Party control of the California State Legislature at the peak of the SVTC's activities and the potential for developing elite allies, coalition leaders stated in interviews that the lobbying process required too much time and energy with little likelihood for reward. In this sense, then, the important variable within the political opportunities literature is not the actual openness of the political structures but the actors' perceptions of openness. Assuming that activists cannot perceive the totality of the relations within any given political structure, their perceptions and how they go about acting on these perceptions better explains why the coalitions developed similar framing strategies despite the contextual differences in political opportunities.

The nature of these political opportunity structures are also exogenously structured by the economics of production. Whereas the AHT and the WEC both emerged following a major shift in the regime of heavy manufacturing and production in the 1970s, the 1990s regime shift in the high-tech sector occurred during the SVTC's existence. Thus the AHT and the WEC developed in an economic environment already altered by a reduction in manufacturing jobs and the growth of the service sector. These economic transitions created spaces in which the AHT and the WEC could engage with workers about the future of employment in the United States. Political debates were sensitive to the potential harmful effect of environmental regulation, since the economies of Massachusetts and New Jersey were already suffering from dislocation. In the case of the SVTC, the high-tech industry was in a much difference position during the coalition's formation than during its maintenance and dissolution stages. After the globalization of the high-tech industry led to the outsourcing and downsizing of most of the semiconductor manufacturing jobs, the SVTC's focus on policing cleanup and regulatory policy also declined.

Political allies generally help all types of movements and coalitions achieve their strategic goals, and blue-green coalitions are no exception. In addition to working on recruiting new coalition partners and maintaining internal organizational cohesion, blue-green coalitions work diligently to establish close ties with political elites. The WEC's right-to-know and right-to-act campaigns were premised on the belief that the state governor and majority party legislators would act as coalition allies. Despite the failure of the right-to-act bill, the WEC shaped its actions around the perception that the New Jersey political elite would endorse their proposals. The AHT, however, is still working to build such relationships with political elites, and it faces a very different challenge than does the WEC. Whereas the WEC promotes the "right to know and act" framework that

most political leaders understand, the AHT is promoting the "precautionary principle," which is a new and unfamiliar concept to most politicians. Thus the AHT must work to define its goals to an audience of potential political allies, which reduces the number of elite supporters. Though the number of its elite political allies that endorse the precautionary principle is growing both in Massachusetts and across the country, the AHT has fewer political allies than the WEC. In this sense, the AHT has more in common with the SVTC, which faces a general uphill battle within the context of political opportunity structures. Though the SVTC has enjoyed the support of key players in Silicon Valley politics, the field of political elites is largely dominated by the high-tech industry. When the SVTC does develop relationships with political allies, they tend to be with city or county government figures that have come to understand that the clean image of the high-tech industry is merely a façade. However, as with the AHT, this is a challenge for the SVTC, requiring them to explain and gather evidence in order to interest most of the political elite in supporting their campaigns.

Where political allies enable coalition success, political opponents have worked to discredit, oppose, and dissolve the three blue-green coalitions. Though the presence on political opponents is common to all three coalitions in this book, their makeup and tactics for countering the goals of the coalitions vary. In each instance of labor-environmental collaboration, there are several different types of opponents. These oppositional actors often include industry trade associations, conservative state representatives, corporations, and business lobbies. The exact configuration of these political opponents varies by coalition and by campaign, though industry trade associations such as the American Chemistry Council are commonly involved due to the perception that their companies will be harmed. Coalition leaders believe that industry groups like the ACC travel to their regions when a particular campaign is coming close to success or for a legislative hearing to ensure that a state such as Massachusetts does not set a precedent for others to follow.

The variation among the three cases along the spectrum of political opponents is based on the degree to which opposition comes from the state or from corporate industrial interests. While there is little variation here, it is useful to examine how different types of opponents shape the work of the three coalitions. While both the WEC and the AHT are opposed both by state and industrial interests, the SVTC interacts relatively little with the state. In large part this is because the state intervenes very little in the health-and-safety practices of the high-tech industry. While the SVTC

operated during the early 1990s as a watchdog organization making sure that clean-up regulations were enforced by state and federal authorities, their actions are largely driven by consumers and the community. Thus there is less antagonism with state players. The WEC and the AHT, however, follow primarily legislative tactics and are thus much more engaged in give-and-take with state actors. Often legislative proposals are made as an alternative to the coalition's actions, pitting the coalitions against state actors.

Coalition opponents also engage in the process of counterframing, in which they attempt to delegitimate or hinder a group's success by developing their own strategic-action frame. This process is most evident in the AHT's campaign to promote the precautionary principle. Given that the precautionary principle is still an evolving concept for managing hazardous substances and processes, there is still much room for debate on how it might be implemented. Opponents of the precautionary principle have developed several counterframes in opposition to its development. These frames tend to present proponents of the precautionary principle as the problem, in that if the principle were to be adopted, workers would lose their jobs, innovation would be stifled, and the United States would loose its global competitive edge. The WEC, too, has faced counterframing, particularly in the right-to-act campaign in which the American Chemistry Council and other industry lobbies were able to organize a coalition of their interests in opposition to the blue-green coalition. The WEC faced virtually no organized resistance on the part of industry during the right-to-know campaign. However, in the next campaign to implement the right-to-act, the coalition faced an alliance of oppositional interests committed to preventing the coalition from experiencing further success. The SVTC initially ran into a counterframing effort to maintain the clean image associated with the high-tech industry during the period of time when toxic groundwater contamination was being discovered across the Santa Clara Valley. Fortunately for the SVTC, enough evidence had been gathered and the press had heavily covered the issue such that industry's attempt to counterframe was unsuccessful. In this case, the SVTC faced less of a challenge in demonstrating the toxic contamination caused by the manufacture of semiconductors than in finding a solution. Whereas the AHT and the WEC faced opposition to the diagnostic element of their frame, the SVTC's largest opposition from industry came in the articulation of a solution to the problem. Nonetheless, the SVTC, like the AHT and the WEC, operates in a complex political environment and must respond to opponents' efforts to capture a particular issue or campaign.

Thus counterframing forces coalitions to carefully articulate their agenda for the future and invest scarce resources in defensive postures.

Labor Participation in Blue-Green Coalitions

The question of who participates is partially determined by what organizations are available to participate. The three blue-green coalitions in this book vary the most in this category, largely due to the differences in the structure of the labor movement in each region. For the AHT and the WEC, labor is represented predominately by major international unions such as the Communication Workers and the Steelworkers. State-level affiliates of the AFL-CIO and major international unions that have state-level bodies are potential members of a blue-green coalition, as are central labor councils, and numerous union locals. As I have argued throughout this book, it is often the local labor bodies that offer the greatest potential for participating in blue-green alliances. Thus my model suggests that the central labor councils and individual locals are ideal candidates for coalition partners, both in terms of predicting success and in the longevity of the coalition. The variation in the overall partners in the three coalitions is presented in table 1.

The three case studies provide excellent comparative evidence of this hypothesis. The availability of formal labor unions in both Massachusetts and New Jersey provides those two coalitions with relatively stable membership pools. The relatively high union density in New Jersey provides a large potential membership pool for the WEC to draw from, and the WEC

TABLE 1.
Coalition Partners

	AHT	WEC	SVTC
Labor Partners	COSH(es) Some unions Labor councils State AFL-CIO	Many unions Labor councils	COSH Few unions Labor councils Worker associations
Environmental Partners	Anti-toxics Mainstream	Anti-toxics Mainstream Environmental justice	Anti-toxics Environmental justice
Other Partners	PIRG Social justice Religious Public health Science	PIRG Social justice Religious	Social justice Immigrants' rights International NGOs Science

has been very successful in recruiting a diverse group of labor organizations. Since the WEC draws from the largest pool of organized labor of the three coalitions studied here, it benefits from the financial resources, membership, and networks drawn from the labor movement. As the AHT continues to grow, it too is gaining access to a substantial pool of potential labor partners. In part, the growth of AHT's labor partners is enabled by the decentralization of industry in Massachusetts. The labor movement is largely structured by region in Massachusetts, with a major division between the western and eastern labor councils. Thus the AHT's labor members are drawn from several different regions from throughout the state, and the recruitment process is aided by bridge-brokering organizations located in the diverse areas.

The SVTC, on the other hand, suffers from a lack of potential labor partners due to the near absence of formal labor unions in the high-tech industry in the Silicon Valley. Relative to the situation of the other two blue-green coalitions, the companies that make up the high-tech industry are vehemently antiunion and possess the resources to challenge any organizing effort. In the void left by not having more traditional labor unions, alternative labor-oriented nonprofit organizations have developed to provide workers with limited representation, training, and education. Compared to union locals, however, these worker organizations are tenuous allies due to their ongoing struggle to find funding and institutional support for their own survival. Whereas union locals draw from a set resource pool in their members' dues, the California nonprofit groups like SCCOSH, AIWA, and other worker-oriented community groups in the Silicon Valley rely primarily on philanthropy, state grants, and other donations to finance their operations. Since participation in any type of coalition, cross-movement or otherwise, requires some surplus of organizational resources in order to engage in collaborative work, the worker-oriented community groups in the Silicon Valley participate in the coalition only when their limited resources allow them to.

This finding is made most clear in the SVTC's latest incarnation as a global leader in environmental justice and sustainable high-tech development. When the SVTC underwent the final frame transformation, growing out of a local grassroots organization to a nationally and globally oriented social movement group, the potential pool of labor partners was drastically altered. During the early formative years in which the SVTC worked solely on issues related to toxics in the Silicon Valley, both unions and the labor-oriented community groups could find a common ground in their shared concerns about health—whether in the workplace or in residential

neighborhoods. Unions whose members worked peripherally in the high-tech industry, like the Communication Workers of America, saw the SVTC as a potential ally and worker empowerment to address health concerns as a way for organizing in those manufacturing plants. Although the SVTC's key labor partner, SCCOSH, attempted to remain neutral in organizing campaigns due to restrictions related to their federal funding, a number of other labor organizations invested in the SVTC because of this perceived opportunity to establish a union foothold in the high-tech electronics industry. When the SVTC transformed its collective-action frame to work on broader issues, this focus on the local was deprioritized—thus giving local unions and labor organizations less of an incentive to participate in the coalition. However, new types of labor national and international organizations that are working on community monitoring of labor practices globally have become potential partners for SVTC. These national and international groups that share a concern with the globalized high-tech industry and the exportation of labor and environmental problems provide a less stable base for the blue-green coalition. However, the importance of local labor support, which in my analysis is key for an enduring labor-environmental coalition, may be called into question as new forms of labor organization, grounded in community groups rather than traditional unions, continue to become important players in the contemporary workforce. The SVTC's growth as a global leader in environmental justice could potentially lead to new forms of blue-green coalitions based entirely on nonunion partners.

In addition, though SCCOSH originally was the founding organization behind the SVTC and a partner in the coalition throughout its development, its participation today is drastically reduced. In part, this decline in participation is due to the transformation of the SVTC's collective-action frame. But equally important has been SCCOSH's investment in several legal battles with high-tech firms such as IBM on behalf of former employees who claim to have became chronically ill from toxic exposures in the workplace. While this type of struggle fits well within the scope of a tactic a blue-green coalition might take to address health concerns, the organizational resources necessary to invest in a legal struggle with a company like IBM go far beyond the financial or organizational scope of most environmental or labor organizations. I believe this investment of time, energy, and financial resources has reduced SCCOSH's ability to participate in the SVTC over time, removing this key bridge-brokering organization from serving the coalition as a link to labor in the future.

Although both the WEC and the AHT, and to some past extent the SVTC, collaborate with major international unions through their locals, the major unions that engage in blue-green work tend to be slightly outside of the mainstream labor movement. If we define the mainstream labor union movement as the more conservative internationals that make up most of the AFL-CIO, then those on periphery of the mainstream are unions like the Change to Win coalition, the United Steelworkers, the CWA, UNITE HERE, and the SEIU with their more social-activist orientation. The unions that tend to work with community groups, including environmentalists, usually possess a more progressive agenda than their more conservative counterparts and more frequently engage in direct action.

The difference in type of labor organization alone cannot sufficiently explain why the SVTC today involves fewer labor groups than the AHT and the WEC. Each group contains one or more COSHes (or itself functions as the state COSH in the case of WEC), the key bridge-brokering organizations highlighted throughout this analysis. These organizations themselves are nonunion, much like the worker-oriented nonprofits in the Silicon Valley. Other organizations involved with the WEC and the AHT are nonunion, such as farmworker associations and other worker collectives. Thus all three coalitions draw on both organized and nonunion elements that make up the contemporary labor movement. What explains the contextual differences in the variation in labor partners is the degree to which a coalition focuses on local issues versus national or international.

Environmental Participation in Blue-Green Coalitions

The label blue-green coalition is often a misnomer in describing the various types of organizations outside the labor movement that participate in these coalitions. I frequently use the term "green" to refer to a broad range of organizations representing several distinct movements. These other partners include community groups, social justice organizations, religious groups, public health organizations, and children's health groups—to list but a few (see table 1). However, my analytic focus is on the relationship between the environmental and labor organizations within a coalition. Even within this more narrowly defined field, there are variations in the types of environmental organizations that participate in the coalitions.

In terms of which environmental organizations participate in each of the coalitions analyzed here, there is some degree of variability—though not in comparison to the labor partners. Again, the SVTC is the outlier. Both the AHT and the WEC draw on a wide range of environmental organizations, ranging from open-space conservation groups to urban environmental justice organizations, many which existed prior to the formation of the coalitions. The SVTC, however, developed as one of the few environmental organizations in the Silicon Valley—though today there are numerous such organizations, some of which are members of the SVTC. Nonetheless, the SVTC developed as a coalition of community groups responding to local environmental problems and then became the foundation of a blue-green coalition. This developmental process sets the SVTC somewhat apart from the other two coalitions. Furthermore, the SVTC has also established a reputation as a leader in environmental justice, which attracts environmental groups also interested in environmental justice to the coalition.

The WEC's environmental membership consists of the broadest range of organizations. The coalition's earliest members included the state Clean Water Action affiliate, the state Public Interest Research Group (PIRG), and several community-based anti-toxics organizations. While these categories of environmental groups remain the primary members, numerous other organizations have affiliated themselves with the coalition, including faith-based environmental groups, open-space preservation groups, hunting and fishing groups, and environmental justice organizations. This high degree of internal diversity challenges the WEC's leadership to maintain internal-frame cohesion while simultaneously offering a breadth of tactics and vision.

The AHT, as the most recent coalition to develop, exists in a dense environmental community, but it must compete with other environmental organizations and coalitions for partners in the saturated activist environment. Massachusetts has long been home to many anti-toxics organizations, from the important legacy of the National Toxics Campaign to the contemporary Toxics Action Center that works with community-based environmental groups. Given this existing environmental activist community, one of the key challenges for the AHT has been to carve out a niche of its own and to begin recruiting partners. The AHT is headquartered in the state Clean Water Action affiliate's offices, and much of its necessary organizational resources are drawn from that single organization. Thus the AHT draws heavily on Clean Water Action's existing network of environmental allies and is able to recruit new environmental organizations

through these established ties. Other types of organizations that are relatively unique to the AHT are environmental health organizations, public health organizations, and academic/professional groups that are supporters of the precautionary principle.

Because each of the three blue-green coalitions examined here promotes health-related issues as a central value of the coalition, most of the environmental organizations that participate in these coalitions are fairly similar. These organizations tend to be located outside of the mainstream environmental movement—that is not working on issues related solely to the "natural world." The environmental organizations that make up the bulk of the participants in these three coalitions tend to focus on the relationship between society and the environment and emphasize environmental pollution's affect on human health.

Choosing Tactics: Legislative versus Direct Action

The differences in political opportunities and in the participants in the three blue-green cases affect what tactics are available and selected by the individual coalitions. Although all three coalitions share a similar strategy in the identification of health as a central issue, the expression of this linkage in tactical form varies slightly between a more legislative-oriented approach and a direct action approach. By legislative, I refer to the tactic of promoting policy-based solutions through the passage of laws at the local or state level. In comparison, a direct action approach involves protest activities such as rallies, boycotts, and strikes. Even though each coalition utilizes some combination of these two types of tactics, they have developed specialized tools to accomplish their goals and tend to favor one type over the other. Also, for financial reasons, all three coalitions are tax exempt nonprofit 501(c)3 organizations and do not endorse political candidates.

For example, both the AHT and the WEC have adopted a primarily legislative strategy to accomplish their political goals. The AHT, however, relies almost entirely on legislative campaigns to promote its agenda. Despite the fact that the AHT enjoys only a moderately favorable political opportunity structure in relation to the Massachusetts State Legislature, its repertoire of action consists primarily of letter and e-mail campaigns to support pending legislative proposals. The AHT develops its own legislative agenda and proposals and regularly consults with lawyers, scientists, and former policymakers to write legislation that they believe is likely to

be adopted. Thus most of the AHT's time and energy is invested in maintaining lists of individuals in their member organizations, communicating through their members' networks, and lobbying in the statehouse.

In contrast, the WEC, which arguably has enjoyed the most favorable political opportunity structures over time, engages in a combination of legislative and direct action tactics. While its leaders also spend much time in the statehouse, they also travel across the state to hold and attend rallies and events in partnership with their coalition members. WEC member organizations are just as likely to be holding a press conference outside the statehouse in support of an action as they are to be inside meeting with lawmakers. This diversity in tactics is derived from the diversity of coalition partners, as each member organization brings to the coalition specialized skills and tactics. Thus many of the organizations that participate in the WEC are grassroots organizations skilled in local protest events designed to call attention to a particular problem of interest. Participation in the WEC gives these organizations access to the political savvy and lobbying skills of other coalition organizations, especially the major unions, which are able to fund full-time political directors who regularly have access to sources of political power in the state. This finding is in contrast to Obach's (2004) argument that organizations with similar tactics are more likely to work together then those with distinct organizational repertoires. While the AHT follows this model, the WEC clearly does not. I believe this distinction is in part the result of the AHT being in the early stage of a coalition's life course. Over time, the AHT's ability to recruit more diverse members may increase the diversity of its tactical repertoire.

Unlike the other two blue-green coalitions, the SVTC focuses primarily on direct action techniques and purposively avoids major legislative initiatives. This decision has enabled the SVTC to invest its limited organizational resources in sponsoring innovative campaigns designed to challenge the clean image of the global high-tech industry. From renting a plane with provocative banners and flying over corporate events to holding rallies with junked computer parts outside Apple's headquarters, the SVTC's primary tactic is direct action. Though the SVTC's direct action tactics reflect a concern with the links between high-tech industries, the environment, and worker occupational safety and health, these tactics offer limited opportunities for unions and other worker-oriented community groups to benefit from. While, during the early years of the SVTC, many unions believed that these types of protest activities would force the high-tech corporations into a defensive bargaining position and create opportunities for union organizing, the industry's shift toward a globalized

electronics market put the companies out of reach. Thus the direct action protests provide little benefit in terms of employment and occupational safety to the former labor partners in the coalition. In comparison to the WEC and the AHT, the SVTC's choice of tactics allows it more flexibility in its actions, as it is not committed to a single set of legislative proposals. However, the SVTC's strategy requires that the general public endorse its goals and take action to pressure the companies and the state to accomplish its goals. Thus the SVTC is much more involved in consumer-driven communication strategies and messaging than the AHT and the WEC, which invest time and energy in developing and promoting legislation.

The contrasting research design is intended to highlight the key differences between the three case coalitions in order to determine which variables explain the variation in coalition formation and success. The political opportunity structures available to the three blue-green coalitions explains much of the variation in their development and trajectory. The SVTC's limited political opportunities set it on a course of direct action against corporate opponents. This course eventually led the SVTC away from the specific interests of its labor partners, as the high-tech industry left the Silicon Valley and diminished the rationale for the coalition to continue working primarily on local issues. In contrast, both the AHT and the WEC are heavily invested in legislative agendas that require support from both labor and environmental interests in order to better their chances of success. Thus the AHT and the WEC remain committed to negotiating the differences between their labor and environmental partners.

Because mainstream unions had virtually no presence in the Silicon Valley, the model of blue-green organizing that the SVTC adopted focused on community-oriented worker organizations and, in particular, its partner organization, SCCOSH. In contrast, the AHT and the WEC have formed a much more diversified relationship with the labor movement and include central labor councils and state affiliates of the AFL-CIO as part of their coalitions. These types of relationships act as a more stable foundation for relations between labor and environmental organizations. Although the STVC continues to work with labor and is involving national and international unions in its work, its lack of emphasis on local labor issues significantly alters its relationship to the labor movement.

Despite these differences, however, all three coalitions share much in common. Though political opportunities and organizational resources help explain how the coalitions developed and why some campaigns were successful while others were not, it is the similarity in strategy and framing that makes these blue-green coalitions an interesting area of inquiry.

Finding Common Ground

Despite all these differences in strategies, partners, timing, and regional politics, these three blue-green alliances have much in common. All of these coalitions have health at their core to link the interests and identities of workers, community activists, and environmental activists in a single collective-action frame. The centrality of health is crucial to each coalition's development and recruitment of labor and environmental organizations to its agenda. By drawing on health as a language and system of communication common to both workers and environmentalists, blue-green coalitions are able to cross the divides that traditionally separate their interests. Whereas environmental protection is often seen as a constraint on the economy and on the creation of new jobs, health-related concerns are shared by workers and environmentalists alike. Rather than immediately focus on job loss or the creation of new jobs, health allows different groups to find a point of commonality from which relationships can be built, stereotypes overcome, and the groundwork established to address more divisive issues like the potential for economic restructuring under an environmentally protective regulatory regime. Attempts to form blue-green coalitions that utilize a discourse of global climate change or the preservation of nature often lack a common discourse that resonates with both constituencies, creating a conflict of language and ideas that hinders coalition formation and success. The AHT, WEC, and SVTC were each able to successfully unite labor and environmental interests by focusing on a discourse built around health.

Each coalition began as an attempt to address the issue of toxic hazards in the environment. For the AHT, the problem was and is the way toxic substances are sold and used that accords an acceptable level of exposure based on risk assessment. For the WEC, the core problem is accessing information on the use and disposal of toxic substances so that activists can act on that knowledge. And for the SVTC, the problem is articulated as a hidden problem of toxics in the high-tech industry. What makes the AHT, WEC, and SVTC unique in regard to other anti-toxics organizations is their recognition, from the onset of their coalition-building efforts, that the risk of exposure to toxics was not limited to unsuspecting community residents. Rather, the three coalitions make explicit in their articulation of the problem of potential toxic hazards that workers are often exposed to the same substances that escape from industrial plants and factories into the surrounding communities where they then become environmental problems. Even more important to the development of the coalitions

is the point that workers are often on the front line of exposure to these toxic hazards, experiencing the deleterious effects on their health and frequently being used as guinea pigs for companies to determine just how much exposure an individual can take before becoming ill. The personal stories of workers made ill on the job or witnessing their coworkers and friends suffer and die has added particularly salient narratives to the coalitions' various campaigns. Environmentalists and community residents also shared their personal stories, but the volume and level of workers willing to risk their jobs by speaking out against their employers has been essential to the success of the coalitions.

The process of establishing a common discourse is aided by the process of frame bridging. Frame bridging is a strategy of frame alignment where two ideologically congruent but structurally separate frames are linked to create a larger, more persuasive frame (Benford and Snow 2000). Despite their differences, each of the blue-green coalitions engaged in this process of frame bridging in an attempt to link together occupational and environmental health concerns. Given the range of framing strategies and communication techniques, that the three blue-green coalitions similarly pursued the strategy of frame bridging focused on health is substantively interesting. The use of frame bridging as the primary frame alignment process in all three blue-green coalitions suggests that the success of this process is a necessary condition for the formation of enduring labor-environmental alliances. In contrast to the marriages of convenience that typify past efforts to bridge the labor-environmental divide, these organizations all sought a united front to address the problem of toxic exposures. The boundaries between conceptions of workplace and environment have been broken down and the connections between hazards in the workplace and toxics in the environment realized. Unlike many other anti-toxics organizations that emerged in the 1980s with a NIMBYist ideology (Gottlieb 1993), the AHT, WEC, and SVTC strategically chose to address toxic hazards at the point of production before they escaped into anyone's backyard. In developing this type of social critique, the connection between labor and environmental interests is fundamentally embedded in the goals, tactics, and framing of the coalitions.

For the AHT, this process of frame bridging has been more challenging than for the WEC and the SVTC. Largely, this difficulty is due to the identification of the AHT with the precautionary principle, which, although to its supporters is inherently about preventing both workplace and environmental risks, remains a difficult concept. In order to facilitate the process, the AHT made a strategic decision to reframe the precautionary principle

as the concept of "safer substitution," which is more akin to workers' familiarity with the principle of the "hierarchy of controls." In doing so, the AHT was able to redirect its recruitment efforts with the labor movement to unions with strong health-and-safety programs that were familiar with the idea that eliminating a toxic substance before it became a hazard is an inherently safer process than controlling and managing a problem.

The strategy of using frame bridging to create a fusion of interests between labor and environmental organizations is facilitated by bridge brokers and bridge-brokering organizations. In comparing the reliance of the three coalitions on these bridge brokers, we find some remarkable similarities. First, in each case a COSH organization is used as the primary bridge broker. Despite the decline in the number of COSHes in the United States and the funding that supports them, each of the three blue-green coalitions emerged in areas where COSH groups were active. Second, each of the coalitions also drew on individuals from the labor movement whose personal experience of illness made them active in the occupational health field and interested in environmentalists' attitudes toward health hazards. These individuals serve as important go-betweens and sources of information that build channels of communication between labor and environmental activists. And third, to a lesser extent each coalition drew on academic partners for generating information and giving legitimacy to the coalition's campaigns.

Bridge brokering as an important concept in understanding the phenomenon of cross-movement coalition formation was first developed by Fred Rose (2000) as part of an examination of class divides in progressive social movements in the United States. Rose found that bridge brokers are those individuals who occupy multiple class locations or roles and are therefore able to communicate across class divides. Inherent to his argument is the notion of language differences between working-class and middle-class movements that make collaboration difficult. Bridge brokers are able to draw on their "bilingual" experiences to facilitate communication between distinct discourses toward the goal of creating cross-movement coalitions. But as recent social movement theorists have argued, class is less of a dividing factor in contemporary social movements (Van Dyke 2003). Rather, contemporary social movements are predicated on distinct identities that are expressed through collective-action frames (Benford and Snow 2000). Thus effective bridge brokers are no longer based on multiple class roles but rather on structural locations that place them at nexuses between movements (Obach 2004a).

In past examinations of labor-environmental coalitions, COSH organizations have been identified as a key source of individuals at a nexus

between the movements (Gottlieb 1993; Obach 2004a). Rather than relying solely on their class identities to bridge labor-environmental divides, COSH activists utilize their professional training and networks to interact with multiple movements including the environmental, labor, immigrants' rights, and public health movements. It is these professional connections and the services COSH organizations offer to these movements that makes them ideal bridge brokers for building labor-environmental coalitions. Bridge brokers tend to originate more from the labor side than the environmental side in blue-green coalitions. This trend assumes that collaboration within the environmental movement requires less effort than building the cross-movement collaboration between labor and environmental organizations. Though this may not be the case for all examples of blue-green coalitions, my research suggests that for the AHT, WEC, and SVTC, coalition leaders relied primarily on labor-oriented bridge brokers and much less on their environmental equivalents. Given that blue-green coalitions are a rarer social phenomenon than environmental coalitions, bridge brokering in the three case studies is oriented toward engaging the labor movement.

For the WEC and the SVTC, the connection between the coalition and a COSH organization is inherent. The WEC is the COSH organization in New Jersey and was founded by a COSH organization from Philadelphia (PhilaPOSH). Throughout the history of the WEC and its various campaigns, a segment of the coalition maintained its COSH functions by providing technical assistance in industrial hygiene to unions in New Jersey that lacked the health-and-safety capacity to address their own problems. This relationship to the labor movement both facilitates the labor-environmental alliance and acts as a financial foundation that supports the coalition's activities. The SVTC's connection to a COSH organization is more personal, as the executive director of SVTC is married to a former director of SCCOSH. Additionally, like the WEC, the SVTC originated as a project of the COSH organization and later emerged as a separate identity. Thus the connections between the WEC and the SVTC exist on a very fundamental level and continue to shape the work the coalitions pursue. The AHT's relationship to COSH organizations is slightly less based on personal networks, though COSH does play an important role. MassCOSH is a founding member of the AHT, though its influence on the coalition is less than in the other case study coalitions. In addition, Western MassCOSH, a second COSH group that represents another region in Massachusetts, also serves as a bridge broker for the AHT and helps recruit labor organizations that are geographically and in terms of

networking less connected to the center of the AHT's work in Boston. These two COSH organizations have been the principle sources of recruitment from the labor movement into the AHT coalition.

The COSH organizations are able to act as successful recruiting agents for blue-green coalitions because of their familiarity with labor organizations that are interested in occupational health and safety. Furthermore, COSH organizations are better suited to the task of effectively translating the coalitions' frames to prospective member organizations. This process occurs both internally and externally. For example, the AHT maintains its Labor Advisory Board that meets regularly to develop and refine strategy for building support among the labor movement in Massachusetts. Externally, MassCOSH and Western MassCOSH take information from the AHT and disperse it throughout their networks to recruit new members. For the WEC and SVTC, this process is less formal due to the personal nature of their relationships to COSH organizations.

In addition to bridge-brokering organizations like COSH, individuals act as key bridge brokers for the blue-green coalitions. In particular, individuals from the labor movement who have personal experience with occupational hazards facilitate the coalitions' formation and political campaigns. In terms of coalition formation, individual bridge brokers add personal experiences to the work of the COSHes in translating a coalition's agenda to potential labor recruits. For the AHT, this process is largely facilitated by a handful of labor activists whose personal experience of illness was so transformative that they were willing to donate their time to the AHT's cause. For the WEC, individual bridge brokers are slightly less relevant due to the large number of labor unions that are members of the coalition. However, through their labor organizational affiliations, key individuals such as local presidents and chairs of health-and-safety committees are often relied on to recruit additional labor members and to maintain internal cohesion among labor supporters. For the SVTC, the reliance on key individuals is very important because of the lack of official labor organizations. Thus persons with influence in the limited labor movement in Silicon Valley, such as the chair of the central labor council there, took on key roles in facilitating communication to the few unions in the area. Through these individual leaders, who were not necessarily the workers made ill on the job but rather those labor leaders who represented them, the SVTC was able to make connections with both organized and unorganized workplaces and individuals.

In terms of political campaigns, each coalition benefited from the presentation of personal experiences of workplace hazards. Whether in

legislative hearings, as was the case with the AHT and the WEC, or in press coverage, as was the case with the SVTC, the personal stories of workplace illnesses and toxics exposures added legitimacy in the form of insider knowledge to the claims of environmental organizations. Many of the coalition activists I interviewed believed that without these insider narratives of peril on the job, their political campaigns would have failed. For example, in the WEC's right-to-know campaign, the testimony of workers regarding their experiences in being forced to work with hazardous substances without having the slightest information regarding their hazards added substance to the anti-toxics activists' claim that their communities were being poisoned. Bill Kane, the labor activist discussed in chapter 3 who released a clear gas into a legislative hearing to generate fear about an unknown substance, is particularly telling of the persuasiveness of such people for getting right-to-know legislation passed. The AHT followed a similar model and utilized the personal testimony of workers to counter the common perception that unions unilaterally supported the interests of business and industry. For example, Steve Gauthier, made ill at work from exposure to aerosolized metal-working fluids, has eloquently expressed the development of his frustrations with the current system of managing hazardous substances in many meetings with labor groups and has been instrumental in recruiting additional support from labor groups. The SVTC, which has been less engaged in specific legislative campaigns, also used the personal experiences of individuals in press releases, films, and newsletters to generate interest and attention to the toxic hazards in the production of high-tech electronics.

Academic partners in the blue-green coalitions are also important bridge brokers, though they are less uniformly distributed across the three cases. While the AHT and the SVTC are formally partnered with academic institutions, the WEC's relationship to academia is less formal and based more on the affiliation of individual academics as members. Involving an academic institution as a coalition partner creates a unique type of bridge-brokering organization. In the case of the AHT, its academic partners at the University of Massachusetts Lowell and Tufts University offer ties to other academics, professional associations, and additional activist organizations that are not otherwise available. Additionally, these academic partners are well suited to provide scientific evidence of the coalition's claims, in a sense translating the precautionary agenda into a scientific argument that supports the need for eliminating workplace and environmental hazards through production substitution. Thus bridge brokering with academics grants access to a language of credible science in support of the

coalition's agenda. Likewise, for the SVTC, partnerships with academics at San Jose State University and the University of California, Berkeley, lend legitimacy, which is much needed in the struggle against the major high-tech corporations. In New Jersey, the WEC, which is established as the state COSH affiliate, is itself a professional organization with specialized skills, and thus it partners slightly less with academic institutions while maintaining only a few affiliations.

The importance of bridge brokering is a common finding in the literature on blue-green coalitions. In this book, however, the commonality in the types of bridge brokers sought out by labor-environmental coalitions offers a new perspective on how coalitions are developed. The importance of COSH organizations, in particular, suggests that blue-green coalitions that develop around health issues are able to draw on a unique type of bridge-brokering organization. In doing so, nascent coalitions are able to facilitate the process of establishing a common discourse and forge a common identity linking together the interests of the labor and environmental movements.

Fighting for Information

Gaining access to information regarding the presence of toxics in workplaces, communities, and the environment is also central to the work of the three blue-green coalitions. Two of the labor-environmental alliances initially developed primarily to advance right-to-know legislation (WEC and SVTC), and the WEC continues to place the importance of accessing information in the workplace and communities at the forefront of its organizing strategies. While the AHT does expressly make claims about the right to know, the precautionary principle is inherently about information and uncertainty in decision making related to health and the environment and is predicated on having the right to know. If health is treated as the common ground for a shared discourse on building labor-environmental coalitions, then the right to know is the articulation of that common language in a specific framework for action. Labor and environmental interests are able to discuss the importance of the right to know through health-based issues, building on a common course toward a common agenda. The success of the initial campaigns of the WEC and SVTC in getting the right to know into local and state law established the importance of labor-environmental collaboration and gave coalition partners a taste of victory that helped maintain internal cohesion.

As the most recent of the coalitions to form, the AHT has yet to experience a similar victory that perpetuates the need for continued cross-movement coalition building. Though the coalition has not yet experienced a major victory like gaining the right to know, it works off of other environmental initiatives. In particular, the efforts of the National Toxics Campaign to gain the right to know and establish the Toxics Use Reduction Institute are a legacy that the AHT is building on. This type of social movement spillover effect (Meyer and Whittier 1994) granted the AHT a similar legitimacy within both the labor and environmental communities that the SVTC and WEC won in their battles for the right to know. In this sense, social movement spillover acts as a mechanism that transmits past knowledge and experience of collective action. By accessing these past repertoires, blue-green coalitions are able to build on past discourses and strategies.

Gottlieb (1993) argues that winning the federal right to know was a major turning point in the history of the contemporary environmental movement because it signaled a new era of cooperation with other movements toward protecting public health and the environment. The passage of state and federal right-to-know legislation also brought forth a new framework for environmental regulation that moved away from traditional command-and-control strategies and introduced information-based regulations that has democratized regulation and forced industry to be more open about production processes. The importance of this shift is evident. For the WEC, the importance of the right to know is obvious as the entire coalition is predicated on gaining the right and protecting it against industry's efforts to repeal it. In the post 9/11 world, access to information on hazardous substances is once again a contentious political issue, as the Bush administration has begun dismantling the federal system of information on toxics—the Toxics Release Inventory. In many ways, this political battle shapes the future trajectories of all three coalitions (though to a lesser extent with the SVTC). For the AHT and WEC, much of their coalition collective-action frame continues to be grounded in access to information, on which further actions such as addressing chemical security problems or implementing the precautionary principle are predicated. The SVTC's ongoing work to address environmental inequalities is also grounded in accessing information to document the unequal exposures to environmental hazards in minority communities. Thus the future trajectories of the three coalitions depend on the right to know, which in the current political environment is an uphill battle. As information regarding the storage and use of toxic substances is being

removed from public access, each of the three coalitions is at least partially involved in resisting this shift.

Identity and Opportunity

A common sentiment expressed by participants from both the labor and environmental movements in the three blue-green coalitions was that the organizations they represented existed outside of the mainstream of their own movement. For environmental organizations participating in the blue-green coalitions, this sentiment suggested that toxics and environmental justice were outside the environmental mainstream. As one coalition participant in the WEC stated, her organization works primarily "on the brown side of the environment"—meaning issues associated with brownfields, toxic waste, and urban environmental problems. Although mainstream environmental groups like the Sierra Club and the Natural Resources Defense Council have been involved in blue-green coalitions other than the three examined here, none of these coalitions have persisted beyond an initial campaign or two. Environmental organizations that hold as their core values issues related to nature and the preservation of wilderness are less likely to have in common with labor organizations a discourse of language that facilitates coalition building. As environmental groups move further toward issues related to public health and toxics, their field of potential issues to address becomes more akin to that of progressive labor organizations. Thus the environmental groups that are participating in the AHT, WEC, and SVTC tend to focus on issues outside the mainstream environmental movement. One could argue that the ideological center of the environmental movement is slowly shifting toward issues related to health and toxics as the rise of the environmental justice movement and the growth of interest in global forms of social inequality are increasingly integrated into the movement.

The labor organizations that participate in the three coalitions also certainly view themselves as left of center in the context of the overall labor movement. Past examinations of labor-environmental coalitions view the spectrum of labor unions as ranging from business-style unions to social activist–style unions, the socially oriented unions being more likely to engage in collaboration with community and environmental organizations (Gordon 2004; Obach 2004). I have found this to hold true for the groups I studied. The labor organizations that participate in the three blue-green coalitions, though diverse in their configuration across the case studies,

nonetheless represent unions that follow a socially oriented agenda and are more likely than their business counterparts to be involved in alliances with other social movements.

For example, the unions that work within the WEC coalition mostly are affiliated with the Industrial Union Council, home to unions like the Steelworkers and the OCAW that see themselves as "tried and true" union activists in contrast to the state AFL-CIO. As I argued in chapter 3, the fact that New Jersey was the last state where the AFL merged with the CIO remains an important divide in the identities of the unions there. The CIO, which was later replaced by the Industrial Union Council, represented the workers organized along industrial lines who were generally less-skilled workers. These were the unions working in the manufacturing plants where occupational health hazards were the greatest, while their power in the decision-making process that affected their health was the weakest. Thus these were the types of unions that were likely to seek out allies in the community and the environmental movement to address the issue of toxics in the workplace. WEC leaders smartly identified this population of labor unions to focus on in their recruitment efforts in the right-to-know campaign and succeeded in building the largest network of pro-environmental labor organizations. The same outsider effect is true of the SVTC for more apparent reasons, as any union or worker-oriented organization operating in the Silicon Valley was outside the mainstream of the labor movement, in that there was no labor movement in the high-tech industry. The official unions that worked with the SVTC in the beginning represented workers on the periphery of high-tech, servicing the manufacturing plants and working for the city governments. The non-union worker organizations like SCCOSH and AIWA were also working on the periphery of the labor movement and have at best enjoyed an uneasy relationship with the mainstream movement. Only the AHT has developed ties to what we might call the core of the labor movement by seeking political endorsements of their legislative agenda from the state AFL-CIO. However, their ability to connect with the core of the labor movement is shaped by the context of labor in Massachusetts, which has generally been more progressively oriented than in other states. Many of the AHT's bridge brokers in the labor movement have invested most of their volunteer time in establishing this relationship.

Often the purpose of creating blue-green coalitions is to ensure that industry's efforts to divide and conquer do not succeed in creating conflict between labor and environmental organizations. In working together toward a common agenda, labor and environmental interests are the strongest.

However, because most of the labor organizations that participate in the blue-green coalitions tend to identify themselves as outsider organizations, there is still the mainstream movement to contend with. Certainly this is the case with the recent split between the AFL-CIO and the Change to Win coalition (discussed in the concluding chapter). In the histories of the three coalitions, there have been instances in each one of conflict within the labor movement. However, the labor leaders I interviewed stated that these internal conflicts were generally avoided in order to maintain the political power of the labor movement. But this process of maintaining internal cohesion within the labor movement cuts both ways, often forcing the labor members of the blue-green coalitions to act in a conservative fashion and limit their actions based on how the broader movement would react. Coalition environmental leaders have felt less of a need, compared to labor activists, to maintain ranks with the broader environmental movement and often have felt empowered by their outsider status.

In chapter 1, I proposed a theoretical model for coalition formation based on the shifting of political opportunities that create opportunities for collaborative endeavors. Organizations interested in cross-movement coalition building are able to capitalize on these political opportunity shifts by constructing a coalition collective identity that resonates across movement divides. Once this identity is forged, it must be maintained by coalition leaders and the separate identity unique to the coalition accepted by its constituents. As the blue-green coalitions begin to grow and adapt to their political environment, new opportunities arise and can also be capitalized on, shifting the purpose and identity of the coalition. In altering the coalition frame to access these new opportunities, resource costs can be incurred and, in the most extreme form, result in the dissolution of the coalition. These costs are greatly reduced by utilizing bridge brokers to communicate across movement divides.

The evidence supporting this theoretical model is strong, as each group involves a bridge-brokering organization from the COSH movement—relying on individuals who are professionally neither traditional environmental activists nor labor organizers. Instead, these COSH activists bridge both worlds, working with unions and other worker organizations to improve health and safety on the job while seeing the bigger problem of toxic hazards beyond the limits of the workplace. It is this particular structural location and diverse identity that give COSH actors their unique qualifications to act as bridge brokers for blue-green alliances. Even though the political climate was favorable at key points for each of the coalitions,

I believe it is unlikely that the alliances between blues and greens could have formed so strongly without the assistance of bridge brokers building a common discourse around health and safety. Through this common discourse, the essential step of constructing a collective identity could be taken. Without a similar worldview, without a shared understanding of a problem, and without a collective sense of purpose none of these coalitions would have been possible. Blue-green alliances that develop overnight after a few meetings between environmental and labor leaders do not have this shared language and joint identity. These types of groups of are more in the style of a marriage of convenience, and like coalitions hastily brokered in the field of electoral politics, they are not able to weather a storm of shifting political allegiances and opportunities in the way the AHT, WEC, and SVTC have been able to do.

Conclusion

Workers are on the front line of the fight for safe workplaces and healthy communities. All too often, though, they are forgotten as environmental and community activists gather allies and build alliances and coalitions to challenge toxic exposures. As I have shown, bringing in partners from the labor movement, whether traditional union activists or health-and-safety activists, can significantly improve the likelihood of a particular campaign's success. The alliances and coalitions brokered by the New Jersey Work Environment Council and the Silicon Valley Toxics Coalition, in particular, mobilized such diverse support early on in their careers such that city and state legislators expressed astonishment at their unprecedented show of community solidarity. The Alliance for a Healthy Tomorrow, which is at a much earlier stage in its career than the other two coalitions, is building such support and shows similar promise.

The labor and environmental movements are two of the most important social movements in the United States. Their combined influence on progressive social change in the twentieth and early twenty-first centuries has been tremendous. Much of this success has come about through collaboration and alliance building between unions and environmental organizations working on a common agenda. Despite the significance of these blue-green coalitions, until now relatively little scholarly work has examined the social conditions and forces leading to their formation. The enduring nature of these three blue-green coalitions is enabled in large part

by the use of health as a master frame that provides a common language to, and guides the agendas of, the coalitions. By focusing on issues related to occupational and environmental health, the Alliance for a Healthy Tomorrow, the Work Environment Council, and the Silicon Valley Toxics Coalition have each created a unique collective identity linking labor and environmental interests.

Given the past history of ideological opposition discussed in chapter 1, the marriage of convenience–style of coalition building common to efforts such as the Turtles and Teamsters alliance ultimately fails to produce lasting results. Relying solely on major political events to build coalitions fails to address fundamental differences in identity, framing, and values between the two movements. Social movement actors who seek to develop long-lasting ties between the movements must pay attention to the role of ideas and the construction of new group identity. The work of constructing coalition collective identities, especially in the context of cross-movement coalitions, is still a frontier field. Examining how framing occurs in the context of these three cross-movement coalitions advances our theoretical understanding of the role of agency and identity in a social movement coalition.

While the three blue-green coalitions exemplify the use of health to bridge the divide between labor and environmental organizations, each coalition articulates its agenda based on addressing workplace and environmental health in a unique fashion. Governed by the specific political context of the region in which they function, leaders in the three coalitions have constructed distinct coalition collective-action frames that give meaning and purpose to the work of alliance building. For example, the AHT articulates its goals through the language of the precautionary principle, with an ultimate agenda of eliminating toxics from production processes and consumer products as much as possible. The WEC articulates its agenda largely through the right to know and the right to act, though it too shares the goal of ensuring a clean and healthy workplace and environment. The SVTC's framing of its core mission was originally very specific to the high-tech industry in San Jose, California, but today it articulates a vision of a clean and sustainable global electronics industry. The contrasts in the three coalitions also provides an opportunity to examine what factors outside of coalition identity play a role in coalition development and trajectory. In particular, political opportunities and political climate have an important influence on the development of the coalitions.

In order to understand how identity and political opportunities influence the development of blue-green alliances over time, it is important to

see that the three groups examined here each represent a different stage in what we might think of as a coalition's life course. Analysis of the AHT, which is mostly representative of a formative stage in this coalition life course, offers insight into the difficult work of recruiting new members from both movements to the blue-green coalition. The analysis of the AHT in chapter 2 focused particularly on the work of framing the precautionary principle and the efforts to translate the concept into a language that the labor movement would respond favorably to. Whereas the AHT is only in its early years, the WEC, examined in chapter 3, is much further along and has gone through several organizational formats and iterations of key campaigns. The WEC's experience in bridging the blue-green divide and in mounting successful coalition campaigns gives the group more to work with in maintaining the existing coalition while exploring new avenues for cooperation. We can think of the WEC as representative of a maintenance stage of a coalition's life course. Chapter 3 emphasized the stress placed on the coalition when new political opportunities arose. In order to capitalize on these new political opportunities if they exist outside the original scope of the coalition, the coalition collective-action frame must be modified. For the WEC, the challenge of incorporating the concept of environmental justice threatened to divide the coalition until its leaders were able to significantly modify the overall frame. In chapter 4, the final stage, coalition dissolution, is examined in the discussion of the SVTC. Although the SVTC initially developed as a blue-green coalition, its coalition collective-action frame became so transformed that the internal linkages between labor and environmental interests eventually dissolved. Thus this final case study provides insight into the process of how a blue-green coalition falls apart.

The threat of coalition dissolution is faced by all three blue-green alliances. All environmental and occupational health policies regulation involves some sort of economic trade-off. At issue is not whether jobs will be lost due to environmental regulation but rather how environmentalists and labor activists can develop a common agenda for the future—a common agenda that promotes both healthy jobs and a clean environment. Blue-green coalitions are the ideal forum in which such an agenda can be developed. Attempts to build blue-green coalitions are likely to succeed when health is the starting point for finding a common ground. This is not to suggest that other issues such as renewable energy, sustainability, or land use do not figure into the scope of what a blue-green coalition might address. However, these issues lack the common discourse that a health-centric framework has to offer. The points of convergence between the fields of occupational health and environmental health provides that

framework in such a way that labor and environmental interests can agree to begin working toward a common agenda of eliminating toxic hazards from the workplace before they escape into the environment. Other environmental and labor issues can be addressed later on and, with the proper education and training, be well integrated into the mission of a blue-green coalition.

When coalition building efforts, as well as existing coalitions, develop and engage new issue arenas, there is a risk of creating an ideological dispute that divides the interests of labor and environmental organizations. Certainly this is the case of many short-lived coalitions such as the Turtles and Teamsters alliance that was quickly divided when free trade issues gave way to energy policies. As I argued in chapter 6, the Silicon Valley Toxics Coalition also experienced a frame dispute when the coalition's frame evolved to engage the high-tech industry at the global level, leaving former labor partners on their own at the local level. By examining the three different stages of the coalition life course, we get a more complete picture of the development of a cross-movement coalition. This same type of analysis can be extended beyond labor-environmental coalitions to other coalitions that involve organizations from more than one social movement. As social movement organizations and coalitions do not fit into specific molds, by understanding the interplay between movements and the effect this interaction has on the formation of coalitions we can better predict and explain the formation of new cross-movement coalitions.

Reciprocity is another important concept that can lead to the dissolution of a blue-green alliance. Although both the SVTC and the WEC originated in campaigns that were are least partially those of the labor movement, though run by labor organizers affiliated with the COSH movement, most recent attempts to build blue-green alliances are initiated by environmental groups frustrated by opposition from organized labor or political roadblocks preventing them from accomplishing their goals. Many of the labor activists I interviewed expressed a concern with being seen as "that labor person" who would be willing to serve on multiple environmental groups' executive boards as a token labor member. No environmental activist expressed a similar concern about being asked to serve on labor councils or to be honorary members of union locals. Why this difference in symbolic value? Could it be that labor activists have traditionally supported more environmental agendas historically speaking than environmentalists have backed labor's agenda?

Relationships between blues and greens must involve reciprocation. It is not enough to simply have a roster of diverse members on an advisory

board. Many of the activists involved in the AHT, WEC, and SVTC cautioned about jumping into ongoing campaigns and bringing in partners desperate for immediate aid. Too often immediate aid is given with little return, souring existing participants in blue-green alliances to future endeavors. To prevent this while still being able to offer immediate aid and obtain further recruitment into coalitions, relationships must be built on solid ground. And as each of these case studies suggests, blue-green relations are not always easy, and oftentimes stereotypes get in the way. Jim Moran of PhilaPOSH and the WEC reflects on the challenge of helping environmental activists begin building bridges:

> Speaking to a environmental conference, I said you have to show them that you don't have horns. They look at you as "freaks and geeks." You have to burn down these barriers. One of the simple tools is to drive by picket lines—strikes were a little more prevalent then than they are today—and stop by, park your car and talk to the folks on the line and see what the problem is and see if there is any way you can help. Show them that you care about those issues affecting them because it affects the class and the wage levels. You have to begin to break down the barrier. It's not going to be them that reaches out to you. It has to be you that reaches out to them. And to do it right up front, start relationships, establish relationships.

If relationships are the foundation of a blue-green coalition, health is one of the important topics for beginning the conversations between labor and environmental activists that lead to relationships. Workers suffer from the same illnesses and ailments caused by toxic exposures as do community members living outside a plant's gates. Professionally and academically, the illnesses and exposures of workers are often treated differently—but at a basic human level they are the same. As Moran poignantly demonstrates in the quote above, stereotypes prevent these conversations from ever beginning. These stereotypes needed to be addressed and overcome at a societal level—they are perpetuated enough at picket lines and Earth Day events across the country. But conversations about the common connections between workplace exposures and environmental exposures can serve to unite these two movements. As we saw with the right to know, the outrage at being denied basic information regarding what substances workers were using and that were being stored in communities across the country brought together diverse groups that were exceptionally influential. This

motivation continues to hold together the Work Environment Council, while the Alliance for a Healthy Tomorrow hopes that the precautionary principle will be the next right-to-know issue of the twenty-first century.

From the exploration of the formation and trajectories of blue-green coalitions a few additional conclusions can be drawn. The future of labor-environmental coalition building can be briefly considered through an alternative model for engaging the labor movement's interest in environmental issues by examining the history of the United Steelworkers. Is it reasonable to suggest that for true fusion to occur between the two movements, the impetus for collaboration must come from the labor movement?

In using a theoretical model from the literature on social movements theory, I have attempted to pull together elements from the traditions of resource mobilization and political opportunities with the concepts of identity and framing in order to improve our understanding of the interaction between identity and political opportunity structures. Giving weight to both agency and structure in this fashion, my analysis of the three blue-green coalitions suggests that while political opportunities are necessary conditions for the formation and success of coalitions, they are not sufficient in and of themselves.

Last, I explore the significance of the recent split within the labor movement between the AFL-CIO and the Change to Win coalition and its implication for the future of labor-environmental coalition building.

Finding Common Ground beyond Health

At the 2004 annual meeting of the New Jersey Work Environment Council, the executive director of the Labor Institute and longtime labor activist, Les Leopold, gave a talk on the prospects of blue-green coalition building in the twenty-first century. His conclusion, after many years of working at the OCAW with Tony Mazzocchi and now with the Labor Institute, was that the impetus for true labor-environmental partnerships must originate from the labor movement. This is in contrast to the three cases looked at in this book that originated from the periphery of the labor movement or from the environmental movement. Leopold argued that future relationships between unions and environmentalists depend on the labor movement realizing its need to collaborate with other progressively oriented social movements.

In several ways, this sentiment mirrors Dan Clawson's (2003) argument about fusion. Looking at the history of the labor movement, Clawson argues that the periods of most growth have been when the labor movement made common cause with other social movements. Thus the rise of the women's movement coincided with growth in organizing women in the workforce, and the civil rights movement, with organizing African Americans in the workforce. Though not all labor theorists agree with Clawson, the retrenchment of the mainstream labor movement's political and social agenda does coincide with the greatest period of decline in the unionized workforce. Those that are less quick to accept the growth-through-fusion argument are also looking toward an uncertain future for the labor movement. The question that both Clawson and Leopold raise, apart from these other arguments, is what exactly does it take for the labor movement to reach out to other movements?

Though my analysis of the formation of blue-green coalitions is unable to shed light on this question, there is one example of a major international labor union engaging in environmental work that offers a brief glimpse into the possibility of union-driven coalition building. The United Steelworkers, formerly called the United Steelworkers of America, has been one of the few unions to grow in the last few decades. This growth, however, is not generated by union organizing campaigns but rather by nearly constant merging with and engulfing of small unions. Today the USW represents workers across multiple industrial sectors, ranging from nurses to chemical workers to clerical workers. Given this broad range of interests within a single union, it is not surprising that the USW is involved in a multitude of collaborative efforts with social movement organizations.

In particular, the United Steelworkers has a long history of working on environmental issues, though not necessarily through blue-green coalitions. Since the 1950s the United Steelworkers has been very involved in issues related to air pollution and worker health. In 1948 a cloud of smog descended over Donora, Pennsylvania, from nearby smelting plants where Steelworkers worked. This event was one of the worst episodes of hazardous air pollution in the history of the United States and it was a key impetus for U.S. air quality regulation. The United Steelworkers donated nearly $10,000 to fund a study to determine what the health consequences of the exposures to the smog that enveloped Donora were. In the following year, the union held a special session on the relation between air pollution and the steel industry at their annual meetings in nearby Pittsburgh. What is most interesting about the Steelworkers' involvement in air pollution is that at that time the environmental conservation movement had not yet

seriously begun to address the problem. By the time the Clean Air Act was being considered by Congress in the 1960s, the Steelworkers had become staunch supporters of the legislation, despite the steel industry's vehement opposition to the bill.

Given the tendency of some of these unions to have progressive leanings, a major labor union like the Steelworkers backing an environmental initiative like the Clean Air Act or the Clean Water Act would not seem unusual. But during the 1950s, with the fear of being labeled communist hanging over the labor movement, for the Steelworkers to oppose one of the major industries in the United States was quite outside the norm. According to the Health, Safety, and Environment director, Mike Wright, Steelworkers leaders at the time simply "just believed in it, that it was the right issue." The Steelworkers' making a connection between air pollution and the environment was, like that of the three blue-green coalitions examined here, based on health. Wright also said, "What they breathe in the plant becomes air pollution." Thus the Steelworkers began investing union funds and staff resources in monitoring the steel industry's performance on air pollution releases in the major mill towns in Indiana and Pennsylvania. For example, one year before the first Earth Day in 1970, the Steelworkers began holding conferences on air pollution and invited health-and-safety activists, environmentalists, and scientists to begin a dialogue about how best to address the issue.

Twenty years later, the Steelworkers had become so involved in environmental issues related to industrial pollution that the union leadership changed the name of their Department of Health and Safety to the Department of Health, Safety, and the Environment. In the first decade of the twenty-first century, a time when most major international unions are cutting their health-and-safety programs to conserve declining resources, the Steelworkers are investing in environmental quality. What makes the USW unique in this regard is its willingness to challenge corporate interests, particularly in the steel industry, to improve environmental performance—with the fundamental belief that if companies like U.S. Steel fall behind on issues like air and water pollution the public's outrage and state fines will ultimately drive them overseas. For the Steelworkers, investing in environmental quality is a way of insuring that domestic businesses are planning for the future rather than running a race to the bottom. The USW has used this belief to challenge corporate malfeasance on other issues, including in the more usual area of wages and benefits. Much in the style of the former OCAW (whose successor, the Paper, Allied-Industrial, Chemical and Energy Workers or PACE, merged with the USWA in 2005

to form the USW in 2005), the USW uses the poor environmental performance of certain companies as political leverage during strikes and lockouts, utilizing their specialized knowledge of manufacturing processes and pollution to pressure company management to improve both their workplace and environmental standards.

Despite the unsurpassed involvement in environmental issues of the USW, it is only just beginning to develop long-term relations with the environmental movement. This can largely be explained simply by the Use's lack of a need to do so. Since the union has been improving its knowledge of environmental problems since 1949, it internally possesses the expertise and interest to address environmental problems at the local, state, and national levels. The union is often a political supporter of major federal environmental legislation including the amendments to the Clean Air Act, and it has been an opponent of the George W. Bush administration's efforts to weaken federal clean air regulations. At the same time, the union is working with environmental groups in communities in the Pacific Northwest to address the leftover environmental hazards of the steel industry. Their willingness to make environmental problems a priority in the organizing and legislative campaigns makes the USW an ideal model for the future of blue-green organizing envisioned by labor critics like Clawson and Leopold.

In the spring of 2006 the USW partnered with the Deep South Center for Environmental Justice, an activist organization affiliated with Dillard University in New Orleans, to launch an outreach project designed to offer environmental health-and-safety training to displaced residents whose homes were flooded by Hurricane Katrina. This training initiative is intended to fill a gap in the remediation training that is currently ongoing in the Gulf Coast by targeting displaced minority populations of New Orleans. Funding for this project comes from a health-and-safety training grant to the USW from the National Institutes of Occupational Safety and Health and a number of private philanthropic funding organizations. For the USW, this partnership marks a new stage in its efforts to establish ties with the environmental movement, as the immediate strictly instrumental benefit to the union is not entirely clear. Motivated by their concern for the future of families returning to the Gulf Coast, the USW is also offering the project participants a one-year scholarship to their Associate Membership Program. Thus by partnering with the Deep South Center, the USW is gaining access to a new population of potential Associate Members in the hope that when and as the Gulf Coast is rebuilt, they will have a potential foothold in the new labor market. This development

is suggestive of the future trajectory of the national labor-environmental coalition that the USW is working to build.

Toward an Integration of Social Movement Theory

Blue-green coalitions are also important exemplars of the challenge of constructing cross-movement coalitions, where groups from several distinct social movements overcome the boundaries separating them to work toward a common goal. Within the existing social movement literature, this meso-level of movement behavior is becoming an increasingly important field of study (McAdam, McCarthy, and Zald 1996). Social movement scholars have in the past recognized the importance of movement interaction, developing concepts like social movement spillover (Meyer and Whittier 1996), frame disputes (Benford 1993), and frame pyramid (Croteau and Hicks 2003). While concepts such as these help us get at how organizations within a single social movement interact, they do not inform our understanding of the nature of cross-movement collaboration. With the added complexity of involving social movement organizations from multiple, often oppositional, movements, no one single tradition in the social movement literature can fully explain the dynamics of cross-movement coalitions.

Though I emphasize the importance of identity and the social construction of collective-action frames, my theoretical approach to understanding the formation and success of cross-movement coalitions is integrative. Blue-green coalitions are often a collective response to a shared political opportunity, most often in response to an environmental event or disaster that sheds light on the linkage between workplace toxins and public health. For example, the discovery of groundwater contamination in the Santa Clara Valley or a sudden rise in toxic workplace accidents in New Jersey creates unique opportunities to build a discourse between labor and environmental interests. It is this process of constructing meaning, of creating a collective-action identity unique to the coalition of labor and environmental interests, that is vital to understand—yet relatively understudied. Several attempts to explain coalition frames and the importance of resonance between individual, organizational, and coalition identities have advanced our understanding of this ideational work, but ultimately they fall short of what is needed to understand the complex work of bringing such diverse actors together.

Collective identity, ideology, and framing are too often lumped into the same residual category of variables that explain why social movements

form. I am interested in both personal and organizational identity, as they play an important role in how individuals approach their role as an activist and their participation in social movement groups and coalitions. One's personal identity influences what groups we are likely to join and, once a member, how likely we are to be actively involved. These individual identities are constructed through worldviews, ideologies, and experience. All of these are important parts of understanding how a blue-green coalition might form. Without the experience of knowing someone from the other side, knowing an environmentalist or labor activist, making the decision to contribute limited resources and to participate in a coalition is unlikely. Instead, coming to see the "other" as similar, as having something in common with us, is a necessary step in the formation of any cross-movement coalition. I have argued here that health is an ideal road—or "bridge," as I have called it—toward this identity realization. If identity is related to ideology in this fashion, then framing can be seen as the expression of identity and ideology, a strategic tool used in the context of movement organizing to express a worldview that supports a movement's agenda. Framing takes a piece of an identity and attempts to make it salient to others, most likely the politically influential and powerful, to accomplish some goal. This action orientation gives identity and ideology purpose. Thus in crafting a coalition collective identity, the key goal is to define why blues and greens should work together and what they have to gain from sacrificing their individual interests for a broader collective. What does solidarity with a different movement have to offer? I believe these to be vital questions that any attempt to bridge the labor-environmental divide must answer early on. Without this coalition identity, such attempts are likely to fail.

Thus my theoretical model is of an integration of political opportunities and framing processes, in recognition that the formation and maintenance of cross-movement coalitions requires attention to both agency and structure. The frame-alignment strategy of frame bridging and responses to political opportunities are both constrained by limitations on organizational resources. Thus all three traditions in the social movement literature are addressed in this model. The interaction of framing, political opportunity, and resource mobilization in the context of blue-green coalitions offers important insights into the social dynamics and structure that both enable and constrain the formation and political viability of cross-movement coalitions. The repertoires of collective action generated by past efforts to form labor-environmental coalitions are only beginning to cumulate in something bigger, a potential national-level blue-green coalition that has yet to develop in the United States.

This model can be extended beyond the specific context of labor-environmental coalition building. Indeed other forms of cross-movement coalitions that require attention to the interaction between framing and political opportunities follow a similar model. For other examples of cross-movement coalitions, such as emerging alliances between religious organizations and environmental groups or social justice organizations and youth groups, a similar technique of developing a common discourse through frame bridging is likely to be fundamentally important. The phenomenon of social movement spillover is one potential mechanism for the transmission of the coalition forms and repertoires of action from one type of cross-movement coalition to another. The environmental and labor organizations that are likely to engage in blue-green coalitions are also likely to be oriented toward other social organizing efforts that fit into their larger agenda. Thus an environmental organization that develops a sensitivity to labor concerns might also be a likely candidate for a coalition with an immigrants' rights youth organization or a group working on border issues. As the boundaries between progressively oriented social movements continue to break down, as they have done in the case of blue-green coalitions, we are likely to see other forms of cross-movement coalitions develop.

The Future of Blue-Green Coalitions

The trajectories of the AHT and the WEC offer important insights into the future of blue-green coalitions. Both are developing new and unique approaches to eliminating the use of toxic substances in the workplace before they escape into the environment. For the AHT, the precautionary principle offers an interesting approach to addressing this problem. In the European Union, the new chemical management regulation, REACH, has led to new coalitions of environmental and labor organizations forming around the precautionary language of the proposed law. In the United States, the Louisville Charter for Safer Chemicals is likewise creating new opportunities for building labor-environmental coalitions. As the precautionary principle receives increasing attention within the labor and environmental movements, it is likely that we will see new forms of alliances develop to promote its implementation. However, the negative political response to the precautionary principle is extraordinarily high. Since the principle represents a fundamental realignment of the management of toxic substances and shifts the burden of proof to those who undertake

potentially hazardous activities, conservative political interests and industrial interests have formed their own alliances in opposition to its implementation. Given labor's weak political position in relation to industry, supporting the precautionary principle in solidarity with the environmental movement may be a risky investment for the labor movement.

The WEC's recent campaign to address issues related to chemical security offers a more likely scenario for the future of labor-environmental coalition building. Given the intense public reaction to issues of homeland security, I believe it is only a matter of time before addressing chemical plant security becomes a major political issue. With the USW representing thousands of workers in domestic chemical manufacturing, the labor movement is already becoming involved in debates with corporations and industrial associations on whether the state should be involved in regulating plant security. Environmental organizations are also questioning the value of the chemical industry's voluntary security measures and are calling for the involvement of the Department of Homeland Security in the regulation and enforcement of security measures in chemical plants. However, as the debate about the security of the chemical infrastructure intensifies, right-to-know laws are also called in to question, as one of the Bush administration's tactics has been to erode the public's entitlement to information. Thus labor and environmental organizations entering the fray of homeland security face a complex political battle with more than the regulation of plant security at stake.

Though the current debate on chemical security focuses primarily on issues of access and maintaining plant security, there is increasing attention to the inherent safety problems of manufacturing and utilizing dangerous substances—shifting the debate from issues of security to decisions regarding whether as a society we should be relying on toxic chemicals in our manufacturing, infrastructure, and consumer products. Both labor and environmental organizations have large stakes in this debate, and although the chemical industry insists that interest groups should not be involved in internal decision making, there is increasing attention to the need to address these questions. Thus chemical safety, not security, may become a major political issue around which new blue-green coalitions form and the WEC will flourish.

In a larger picture, blue-green coalitions generate a significant shift in how the labor and environmental movements see themselves. In each of the three cases in this book, interviewees from both movements often reported a major shift in how they perceived activists from the other movement (e.g., environmental activists rethinking their stereotypes about

union members as only caring about money, not health). Through this reflection on their own stereotypes, these interviewees also began to rethink their own positions and identities as environmentalists or trade unionists. Sometimes individuals brought an expanded perspective to a coalition from a prior transformative experience, but they nonetheless utilized this broadened worldview to help build the coalitions and to recruit new members. As an increasing number of individuals from the singular movements undergo this transformative experience, a significant discursive shift occurs within the movement that can lead to rethinking of the movement's positions on many social problems. For example, the WEC's involvement in the environmental justice struggle introduced both mainstream environmentalists and union activists to the issue of environmental racism and inequality. Though the effect was not immediate, eventually a number of union and environmental members became actively involved in other environmental justice struggles across New Jersey. Thus the introduction to environmental justice led to a major shift in how union actors in particular perceived their role as activists and led to their involvement in the issue. Shifts such as these builds a foundation on which major transformations in how the overall movements perceive themselves can be based.

Just Transitions: Just or Unjust?

The principle of just transition has been mentioned throughout this book as one of the key points of convergence between the labor and environmental movements. Growing out of the important blue-green organizing work of the OCAW and in particular of its former legislative director Tony Mazzocchi, just transition recognizes that trade-offs are required when negotiating between labor and environmental interests. For some industries, preventing worker and environmental exposures to toxic substances requires a complete plant closure—thus necessitating a just transition for the employees of that industry into equally well-paying jobs. Just transition, in this sense, serves as a safety net for workers displaced by environmental protection. The concept is embodied in the Just Transition Alliance, a labor-environmental coalition based in Washington, D.C., that works in communities across the United States to bring the two movements closer together. Despite this dedication to advancing the project of blue-green, there are many activists in both movements that are uneasy about the role of just transition in the future of coalition building.

The Just Transition Alliance is built around six guiding principles that tie together various elements of environmental justice, sustainability, and

fair trade in a language of empowerment and equality. Its labor membership continues to grow, and the influence of the Just Transition Alliance is felt whenever an organization—labor, environmental, or coalition based—discusses the possibility of including some type of just transition language in a campaign. For actors in the blue-green coalitions in my analysis, displacing workers in any industry is not an ideal outcome. Both politically and ideologically, relying on just transition language in proposed legislation or articulated in a mission statement would be a detriment to the goal of promoting a discourse between labor and environmental interests. In the case of the Alliance for a Healthy Tomorrow, which promotes safer substitution and includes just transition language in several of its legislative proposals, requesting a pool of money to retrain workers is in direct opposition to the argument that safer substitution will not cause job loss. But the just transition language remains as a concession to the labor movement and a demonstration of the good will between the two movements. However, leaders in the AHT expressed distaste for the basic principle behind just transition as having to retrain workers in case of an industry shutting down would mean that the process of safer substitution failed. Thus there is an inherent contradiction between promoting substitution and just transition simultaneously. For the Silicon Valley Toxics Coalition, banning workers from hazardous job settings and replacing them with automation was never an answer either. This sentiment was expressly demonstrated in the Ban Toxics, Not Workers campaign that the SVTC developed in the 1990s. When the high-tech industry began banning women from certain jobs due to their allegedly unique health risks from toxic exposures, rather than supporting this decision to "protect" women from toxics, the SVTC joined with a number of organizations to protest the action. The WEC has been involved with just transition language, and there is less of an inherent conflict in promoting the right to know and ensuring that workers are protected if environmental protection should close down plants. Because of the legacy of industrial density in New Jersey and the more recent decline in domestic manufacturing, there is much more experience within the labor movement with job loss. Thus for the WEC, just transition is a more valid concept.

The question of whether just transition provides an equitable framework for managing the potential job loss associated with environmental policy or a way out for environmentalists in dealing with the labor movement cannot be answered in the scope of this book. What can be addressed, however, is the three blue-green coalitions' efforts to deal with the inherent problem of trade-offs between dirty jobs, clean jobs, and a

healthy environment. Though this conflict is inherent in the overall agendas of each of the coalitions, just transition makes the problem explicit and provides one potential solution that in some cases is antithetical to the coalitions' specific goals. The AHT and the SVTC, rather than relying solely on the work of others to address the problem of trade-off, are developing original alternative solutions so that the choice between employment and the environment need not arise.

Labor's Love Lost

In the summer of 2005, a schism erupted between major international unions within the AFL-CIO. Four major unions left the AFL-CIO in 2005: the Service Employees International Union, the International Brotherhood of Teamsters, the United Food and Commercial Workers, and UNITE HERE. Together, these dissident unions formed their own coalition called Change to Win. Altogether, the Change to Win unions represent about a third of the AFL-CIO's former membership. The internal split was led by the SEIU's president, Andrew Stern (a former protégé of the AFL-CIO's president John Sweeny), who claimed that the labor movement had lost its focus on organizing and was entrenched in its own bureaucratic interests (Greenhouse 2005). Some labor critics believed that Stern's political maneuvers during the AFL-CIO annual meeting were intended to draw attention to the need for a reinvestment in organizing campaigns, but they were proved wrong when in late July the SEIU and the other major unions broke away from the AFL-CIO.

The result is that now there are two national coalitions representing the labor movement with opposing positions regarding the future of unions in the U.S. economy in the twenty-first century. On the one hand, the Change to Win coalition believes that the future of the labor movement lies in reaching the hundreds of thousands of unorganized workers predominately located in the service sector. In contrast, the AFL-CIO continues to follow a strategy of business as usual, investing their reduced resources in maintaining an existing top-heavy bureaucracy while working to organize in multiple industrial sectors. What does this split mean for the future of labor-environmental coalition building?

In the past the AFL-CIO has adopted a more entrenched political position, and it is not known for working in direct partnership with other social movements (Gordon 2004). For critics of the labor movement, the entrenched political positions of the AFL-CIO on important social issues like welfare reform, immigrants' rights, and the environment has been a

source of conflict within the larger political Left (Aronowitz 1993). In a telling note, when Lane Kirkland took over the presidency of the AFL-CIO in 1984, the U.S. presidential primary required the new labor leader to take choose between Democrats Walter Mondale and Gary Hart, who had been courting investors in the new emerging Silicon Valley. To demonstrate labor's unwavering support for the tried-and-true Mondale, Kirkland made this unfortunate public statement: "Fritz Mondale is not some synthetic Masked Marvel or Mystery Man.…He is not made of silicon and microchip flakes. He is made of flesh and blood and brains (Roddy 2005)." To the AFL-CIO, the upstart nonunion companies growing in the Silicon Valley represented something foreign, something antithetical to organized labor's base in manufacturing and industry. As other critics of the labor movement have argued, this position was indicative of the labor movement's inability to envision the future of organizing. Mondale lost the presidential election in forty-nine states, and labor continued to lose members across the country.

Today the AFL-CIO has been forced to cut its overall budget by 25 percent due to the split with Change to Win. It has chosen to eliminate its news magazine and shut down its health-and-safety department (Greenhouse 2006). This is not surprising, as many of the health-and-safety activists I interviewed believed that the AFL-CIO was pulling staff and funding away from that department prior to the split. Whereas the health-and-safety activists I interviewed felt unrepresented in the area of occupational health in the AFL-CIO, many thought that Change to Win offered a new opportunity to make health and safety a priority of the labor movement. The reason for this newfound hope was the main union driving the Change to Win coalition is the SEIU, whose organizing campaigns have been successful in building interest in the labor movement of the twenty-first century. Much of SEIU's success comes from one of its projects, Justice for Janitors. By organizing broad sweeps of businesses that hire cleaning and janitorial services rather than organizing shop by shop, the SEIU and Justice for Janitors reinvented organizing strategy. Among the issues raised during these campaigns were occupational exposures to toxic cleaning products.

Many of the occupational health and environmental health activists I interviewed believed that this type of organizing strategy, with health and safety at the forefront, would come to characterize the work of the Change to Win coalition. The realization of this belief, however, has yet to come to fruition. Instead, Change to Win has invested its organizational resources in a very similar fashion to the AFL-CIO, slashing funding for

programs such as health and safety in order to have enough money to support the coalition and new organizing campaigns. So although many environmental activists I interviewed were looking to the Change to Win coalition as the future of labor-environmental coalition building, we have yet to see this happen. Furthermore, insiders within the labor movement believe that a formal alliance between environmental groups, mainstream or otherwise, and the Change to Win coalition is unlikely.

Tomorrow's Blue-Green

The future of labor-environmental coalition building remains unclear. There is much evidence to suggest that united, the two movements can accomplish more than they could individually. Although many attempts to bring together blues and greens have failed, each coalition-building effort that is successful increases the chances of new opportunities for collaboration. For example, the Blue/Green Working Group was an attempt in the 1990s to create a dialogue between leaders in both movements about climate change that ultimately failed to generate serious commitments from either side. Yet in 2006, a similar project called the Blue Green Alliance was launched by the Public Health Institute, itself a nonprofit organization with important ties to Tony Mazzocchi's earlier efforts at building blue-green alliances. The Blue Green Alliance is essentially a partnership between the Sierra Club and the United Steelworkers created to promote the idea that "green collar" jobs in clean-energy related industries are a common solution to the problems of global climate change and the growing lack of sustainable, healthy, and well-paying jobs both in the United States and globally. Unlike the Blue/Green Working group, which brought together national leaders from both movements, the Blue Green Alliance operates at the state and local levels and has capitalized on relationships formed through the Public Health Institute and the United Steelworker's labor-environmental workshops held across the country in the early 2000s. The Blue Green Alliance combines these individual-level relationships developed primarily around shared health concerns with a broader agenda that links together local economies with global environmental crises. In March 2008, the Blue Green Alliance held the first "Good Jobs, Green Jobs" national conference in Pittsburgh, with much acclaim and participation from both the labor and environmental movements. This approach to labor-environmental coalition building has great potential for changing the way we think about the economy in relation to the environment.

In a global economy, the race-to-the-bottom strategy adopted by transnational corporations to avoid both environmental and labor regulations is discouraging. The globalization of manufacturing and services has resulted in a new regime of production that has allowed industries to reassert their control over working conditions and to weaken the power of workers to organize. Despite the courage of the labor organizations participating the three blue-green coalitions, many of the labor members I interviewed nonetheless expressed a concern that environmental agitation could cause their employers to move overseas or outsource their job to another country. When blue-green coalitions, like the SVTC, transition to a globally oriented organization, they run the risk of reducing the benefit for struggling domestic labor organizations to invest their limited time and resources in the coalition. Thus the importance of the local, which I argue is essential to the formation of lasting blue-green coalitions, also constrains the future of coalition building.

The solution is the development of alternative models of production and manufacturing that create globally competitive industries where the promotion of health and safety is inherent. The AHT is currently working toward this goal by promoting the principle of safer substitution and investing in the development of sustainable green technologies. The field of green chemistry, for example, is becoming a global market where countries like Germany that have invested in the development of environmentally friendly technologies on a much larger scale than in the United States continue to dominate. Investment in such technologies at home promises both domestic employment and a safer environment. Unions can help industries shift their production processes toward a more sustainable model and invest in green chemistry by being outspoken proponents of these developments. If labor and environmental organizations are able to work together toward promoting this type of agenda, then the issue of jobs versus the environment can truly be eliminated—making the fusion of the two progressive movements a likely possibility.

In order for these blue-green coalitions to form, their distinct identities and agendas need to be bridged. This process can be best understood through the lens of social movement theory, and in particular through an integration of political process theory and framing process theory. Such an integrated model offers the greatest insight into the nature of these cross-movement coalitions. In addition, the examination of bridge brokers as necessary actors that are able to cross movement boundaries through professional expertise and networks also informs out understanding of how cross-movement coalitions develop and evolve. This analysis of

blue-green coalitions can be extended to other cross-movement coalitions as well. With the future of the social movement literature hinging on our understanding of this meso-level of movement interaction, the analysis of negotiating the often oppositional positions of labor and environmental organizations offers several important insights into the nature of cross-movement coalition building.

The three cases investigated in this book offer important examples of how labor-environmental coalitions form and go about negotiating the complex political landscape of addressing workplace and environmental health hazards. Returning to the concept of toxic circles discussed in the introduction, activist attempts to address single rings of the circles emanating outward from the point of production will often fail because they exclude relevant stakeholders. If a proposed solution addresses only the needs of communities and public health, workers are all too often left out of the debate and are thus susceptible to job blackmail. Workplace efforts to reduce occupational hazards often lack the political backing that is associated with environmental campaigns. Together, the combination of labor and environmental groups concerned about eliminating toxic hazards offers the greatest opportunity to succeed in creating safe workplaces, healthy communities, and clean environments.

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Methodological Appendix

Labor and environmental organizations operate in fairly different social contexts. Union halls are welcoming places with staff people generally in place to help out strangers walking in through their doors. Environmental groups, depending on their size, are slightly less organized. Many of the interviews I conducted with environmental activists were conducted in someone's home or at a local restaurant. These contextual differences provided an interesting backdrop to the common story of learning that the stereotype of the other group was completely incorrect. When my fieldwork took me to coalition meetings or joint activities, the similarities between activists from each movement became immediately evident—suggesting that collaboration could simply begin when relationships were given the opportunity to form.

My primary research question focuses on the construction of a joint identity by labor and environmental groups based on a shared concern with health. Given the nature of this question, I rely primarily on qualitative methods for data collection and analysis. Qualitative methods, in the form of interviews, ethnographic observations, and document analyses provide the greatest opportunity for gaining insight into how these collaborative identities are forged and evolve.

Data collection began in 2003, although additional interviews from an earlier project involving the Alliance for a Healthy Tomorrow were collected as early as 2001 and are used to supplement the primary data.

I began my research with the Alliance for a Healthy Tomorrow, primarily due to its proximity to Brown University. As the AHT is categorized in this book as representative of the formation stage of a blue-green coalition, it is appropriate that my initial foray into the phenomenon of labor-environmental coalitions began there. In 2004 I began my fieldwork in New Jersey and California, conducting interviews, making observations, and gathering documents from the Work Environment Council and the Silicon Valley Toxics Coalition. Initial and follow-up interviews were completed in spring 2006. This appendix reviews the selection process for the case studies, the collection of these data, as well as the research methods, sampling design, and comparative logic utilized in this book.

Case Selection

To date there has been no systematic study of the prevalence of blue-green coalitions in the United States. Studies have just begun to assess the degree to which either the labor or environmental organizations that are working together attempt to enter some formal alliance of interests. Electoral coalitions of the two movements are incredibly common, as the Democratic Party is at the base of both movements (Gordon 2004; Obach 2004). Other efforts to represent a united front on legislative proposals are common as well (Gordon 2004; Gottlieb 1993; Obach 2004). International coalitions between labor and environmental movements are starting to become subjects for analysis (Gould, Lewis, and Roberts 2005). Even within this limited body of literature on the subject of blue-green coalitions, many levels of analyses are used to examine how and why coalitions form. To advance our understanding of these blue-green coalitions, I argue that in-depth analysis of specific coalitions is required.

Whereas Obach (2002; 2004a) explores the phenomenon of blue-green relations at the state level and Gordon (2004) at the national level, I believe that focusing on specific examples of coalitions offers the best unit of analysis for the purposes of understanding the social dynamics of linking labor and environmental ideologies. This level of analysis is more in line with Rose's (2000) examination of local labor-environmental coalitions and Gould, Lewis, and Robert's (2005) case study model. However, my work departs from these studies by limiting the number of potential blue-green coalitions by specifying the centrality of health-related issues in the case-study selection process.

I define a health-centric blue-green coalition as a formal alliance involving labor and environmental organizations resulting in a separate social movement coalition whose stated mission is to improve situations involving occupational and/or environmental health. By occupational health or environmental health, I refer to issues linked to the prevention of disease in human populations. Often this type of health issue is expressed in terms of structural change, such as states or the federal government enacting legislation granting communities and workers the right to know what toxic substances they might be exposed to or legislation to ban certain harmful substances. Where health is not articulated in terms of structural change, there is often a reference to "toxics," as there is in the type of blue-green coalition I am interested in. This focus on toxic substances in both the workplace and the environment indicates a coalition that is centrally concerned with health.

The majority of coalitions between labor and environmental groups, such as the Turtles and Teamsters alliance discussed in the introduction and chapter 1, Environmentalists for Full Employment, also discussed in chapter 1, or the now disbanded Blue/Green Working Group, are not potential cases for my research because of their lack of a health-centric framework. Instead, I selected three blue-green coalitions that address health-related issues. Despite their geographic variation, all of the three coalitions pursue similar strategies for framing their identity and purpose and for accomplishing their political goals.

The Coalition Life Course

The three cases I analyze here are all representative of different stages in what I refer to as "the coalition life course." The coalition life course suggests that there are distinct stages through which a coalition progresses from formation to maintenance to ultimate dissolution. At each of these three stages, framing strategies and political tactics many vary to a certain degree. As a coalition enters each stage, its strategies for internal cohesion and advancing its political agenda will vary. Thus my analysis of each blue-green coalition emphasizes slightly different trends. For example, the Alliance for a Healthy Tomorrow is representative of a newly forming blue-green coalition and requires more analytical attention to the initial construction of a coalition collective-action frame. Analysis of the New Jersey Work Environment Council, which is well past the point of formation, emphasizes the coalition's strategies for frame maintenance. Finally, the analysis of the Silicon Valley Toxics Coalition examines the decisions

leading up to and the conditions facilitating the ultimate withdrawal of its labor partners.

The primary research question of how and why do blue-green coalitions form is pertinent to all three cases. Though not all of the cases have progressed to the stage of maintenance, and only the Silicon Valley Toxics Coalition is entering the dissolution of its labor-environmental relations, each case is or has dealt with the challenges of identifying the core purpose of the coalition and constructing a collective-action frame. Thus the inclusion of coalitions at several points in coalition life course adds to my analysis.

Geographic Variation

Rather than controlling for geographic location by searching for case studies in the same area, I chose three cases that, despite their geographic variation, operate in similar political environments. The three case studies operate at roughly the same political level (that is, region or state). Massachusetts, California, and New Jersey share similarities in terms of political makeup, presence of labor unions, and presence of environmental organizations.

Variation in the degree of unionization of employed workers is similar in each of the locations. In 2005 the Bureau of Labor Statistics reported a national average of 12.5 percent of the total workforce as unionized. In each of the three states I've selected, the unionization level was slightly higher than the average. In Massachusetts, 13.5 percent of the workforce is affiliated with a union, in New Jersey it is 19.8 percent, and in California 16.5 percent (BLS 2006). However, the primary industrial sectors for the states are slightly different. For example, the high-tech industry in Santa Clara County, California, is almost entirely nonunion. The more industrialized state of New Jersey continues to support a high level of unionization in light manufacturing. And in Massachusetts, there is a lower, but stable, level of manufacturing that also supports industrial unions to a slightly lesser extent than New Jersey. Despite this variation in the type of industrial sectors where unions continue to persist, the overall strength of the labor movement is generally the same in each of the three states.

California, Massachusetts, and New Jersey are also fairly similar in terms of the level of environmental organizing. All three are home to rather large Sierra Club affiliates, Clean Water Action chapters, and Public Interest Research Groups. Though these three organizations do not

represent the entirety of the mainstream environmental movement, they are each significant organizations that are very involved in blue-green coalition building across the country. Their strong presence in each of the three states makes them likely candidates for becoming member organizations in the three coalitions. Environmental justice organizations, too, with their emphasis on social inequalities and their links to unequal environmental exposures, are present in the three states—though to a lesser extent in Massachusetts. Although datasets similar to those of the Bureau of Labor Statistics do not exist for the number of environmental organizations, the states in which the three case studies operate possess similar environmental organization terrains.

Finally, the political environment of the three states is also relatively similar. All three tend to vote slightly more Democratic than Republican, though the governorships do not always reflect the control of the state legislature. However, this divide between executive and legislative authorities is shared at times in each of the three states, creating a complex political environment. In Massachusetts roughly 62 percent of the population voted Democratic in the 2004 presidential election, while in 2002 only 45 percent voted for the Democratic gubernatorial candidate, while 50 percent voted for the Republican candidate. In New Jersey 47 percent voted for the Democratic gubernatorial candidate, while only 40 percent voted for the Republican. In California 54.3 percent voted for the Democratic candidate in the 2004 presidential race. In the governor's race in 2002, 48 percent of Californians voted Democratic, while 42 percent voted Republican—though Governor Gray Davis was recalled a year later and replaced with a Republican.

While these electoral statistics only provide a brief and static view of the complex political environment in which the three blue-green coalitions operate, they are indicative of larger trends that enable and constrain their formation and political trajectories. Despite their geographic variation, the three coalitions have developed similar tactics to capitalize on what political opportunities are afforded them. For example, each has pursued high-profile legislative campaigns, capitalizing on their Democratic allies in the state legislatures. All three have met political failure from a governor's veto or political restraint on what actions are possible. By controlling for this variation in political environment despite the different geographic locations, my analysis is ideally suited to examine the process of coalition formation and political success with specific attention to the role of framing.

Data Collection

Thee types of data were collected: interviews, observations, and documents. While the primary data presented in this book are interviews, both the ethnographic observations and documents analyses supplement and corroborate my oral findings. The sections that follow outline the type of qualitative methods used to collect data, the number of interviews and observations collected by case study, and what types of documents were collected.

Interviews

Semistructured interviews were undertaken at all three research sites with social movement activists participating in the blue-green coalitions, representatives of organizations who selected not to participate in the coalition, government representatives, and scientific and medical professionals. (Table A.1 shows a breakdown of interviews collected by research site and type of interviewee.) I began the process of collecting interview data by meeting with the executive directors of each blue-green coalition. These meetings were intended to introduce my research agenda and seek access to the organization's staff and members as well as gain formal approval from the executive director and board of directors where applicable. I received permission from all three executive directors to begin interviewing coalition participants.

To identify potential interviewees, I began with a purposeful sample of activists currently sitting on the boards of each coalition to try to determine why each individual volunteered to act as a leader of the blue-green coalition. Once I had interviewed all or most of the members of each board of directors, I employed a snowball sampling technique to identify key respondents both within and outside the membership of the coalitions. This snowball sampling technique was facilitated in part by a final

TABLE A.1.
Interviews

	Alliance for a Healthy Tomorrow	New Jersey Work Environment Council	Silicon Valley Toxics Coalition	Total
Labor	20	19	9	48
Environmental	21	15	8	44
Other	9	6	5	20
Total	50	40	22	112

question in the semistructured interview where I asked each respondent to suggest potential interviewees. The snowball sampling was also facilitated through the direction of the executive director and inquiries were sent to various activist networks requesting interested individuals to contact me. These additional interviews proved to be fruitful sources of information that reflected opinions and ideas from coalition "outsiders" that helped corroborate certain findings as well as to point my research in unanticipated directions. This diversity of viewpoints informed my interpretation of the framing process, in particular, as this line of inquiry explores how coalition builders communicate and attract individuals and organizations from various elements of the labor and environmental movements.

Interviewees at each research site were asked virtually identical questions designed to assess their role in the coalition, how they became a participant, what benefits they derive—both for themselves and the organizations they might represent—through participation, what obstacles were overcome, and what they see in the future of the coalition. A semistructured format was used so that interviewees could reflect on subjects of discussion generated by particular questions. New issues and questions were invariably developed through this process, generating a rich source of data that helped shape the trajectory of my analysis. In addition, depending on whether informants viewed themselves as labor or environmental activists, questions regarding the overall state of their relevant movement in the context of blue-green coalition building were included in an effort to understand how the interviewees placed themselves or their organization in a broader social context.

Interview protocols were approved in 2004 by Brown University's Office of Research Administration Institutional Review Board. Prior to the administering of the interview, respondents were provided an informed consent form that outlined the overall scope of the project, their rights as research subjects, and a statement that all effort would be made to maintain confidentially. All respondents agreed to the informed consent, either verbally or in writing. In many instances, respondents asked to waive their right to confidentiality and were more than willing to share their opinions publicly. Labor activists, in particular, were willing to express their views without confidentiality. When this request was made, I attempted to document each respondent's request to waive confidentiality, either in writing on the informed consent form or through voice recording.

Interviews were recorded when approved of by the respondent. Both in-person and telephone interviews were digitally recorded and stored

electronically for transcription and analysis. I personally transcribed each interview, thus negating the need for third-party verification. Occasionally, an interviewee requested that their interview not be recorded entirely or that certain portions be omitted. In these few instances, I substituted my field notes for a transcribed interview for analysis.

Ethnographic Observations

To supplement the data I collected through the semistructured interviews, I also conducted a number of ethnographic observations of coalition board meetings, events, protests, day-to-day functioning, and other related activities when possible. These data offer a broad opportunity to observe the interaction of individuals within each coalition, which provided much insight into the relationships between the labor and environmental constituents. Additionally, observations of public events provided the opportunity to gauge "outside" reaction to the coalition's activities. These public events included legislative hearings, press conferences, and public forums. (See table A.2 for ethnographic observation by case study.)

I engaged in two different forms of ethnographic observations: participant and nonparticipant. The two different styles produced qualitatively different data. In the case of nonparticipant observation, I maintained my role as an outside researcher interested in the formation and operation of blue-green coalitions. My identity as an academic researcher afforded me only limited access to coalition events, and I observed the events as well as group interactions from a distance. Data collected through these nonparticipant observations provide an excellent outsider's view of the coalition's behaviors. As I became more known to the coalitions' leadership, my access to events and meetings increased. In particular, I gained access to board meetings and other closed-door events. These meetings provided an exceptional source of data to observe the strategic use of frames to attract new members as well as to maintain the participation of existing members.

TABLE A.2.
Ethnographic Observations

	Alliance for a Healthy Tomorrow	New Jersey Work Environment Council	Silicon Valley Toxics Coalition
Observations	16	7	1

Over time I was also invited to assist in various events and even was asked to lobby politicians to endorse a coalition's legislation. To maintain objectivity, I declined these opportunities until I gathered sufficient data from nonparticipant observations to accurately construct a complete account of coalition recruitment efforts. At this point, I selectively engaged in participant observations of two of the three coalitions (AHT and WEC) to gain an insider's prospective on the internal work of constructing the coalition's collective-action frame and efforts to communicate its goals to politicians and the general public.

Toward the end of my data collection, I was invited to become an informal member of the Alliance for a Healthy Tomorrow's Labor Advisory Board. This role provided another opportunity to observe the internal strategy for recruiting new labor participants to the coalition. My direct participation on the Labor Advisory Board lasted approximately two years followed by several years of indirect participation, during which time I continued to collect data. My analysis of the AHT's efforts to modify the precautionary principle so that the coalition collective-action frame resonates better with labor organizations is based largely on my observations of monthly meetings, conference calls, and events during that extended period.

Document Collection

As a third source of data to verify my findings in the interviews and observations, I collected many documents pertinent to each of the three case studies. Documents included coalition newsletters (including e-newsletters), coalition publications and fact sheets, press releases, media reports, legislative bills and supporting documents, and other internal documents (memos, meeting minutes, reports, strategic plans). The data contained in these documents was used to corroborate my findings and, as with the case of observations, to provide context to and external viewpoints on the coalition's work.

The three coalitions varied as to the level of their record keeping. The Silicon Valley Toxics Coalition, for example, kept meticulous files containing documented minutes from meetings ranging over twenty years, press clippings, campaign flyers, and other relevant documents. The New Jersey Work Environment Council also kept regular internal documents and produced several reports summarizing past campaign events. The Alliance for a Healthy Tomorrow, in part because of its relative youth, provided fewer documents. Together these documents from the three coalitions provided

invaluable evidence of past framing strategies, political goals, and internal discussions. Though I asked interviewees to reflect on past strategies and goals, each individual only remembered a particular element that motivated them to participate or a particular event—making the document analysis a key source of verification of interview data.

Data Analysis

Interview transcripts and field notes were qualitatively analyzed with the assistance of the software program QSR NVivo. Before beginning the process of analysis, I generated a list of codes and themes related to specific research questions to help identity relevant pieces of information contained in the interviews and observations. Specifically, these codes reflect my interest in the exploration of how blue-green coalitions form, what issues bring the movements closer together, and how respondents perceive the benefits and costs of participating in such a coalition. For example, interviews were coded with topics such as personal health concerns, coalition resources, identity, group stereotypes, coalition barriers, tactics, bridge brokers, and political goals.

In addition to this original set of codes, additional themes were developed iteratively through the process of analysis, allowing new codes to be constructed as they emerged from the data. This process allowed me to identify new themes as they emerged through the process of data analysis.

Using NVivo, I was able to generate reports linking themes to particular groups of respondents. These reports were utilized to provide basic statistical information on the prevalence of each theme and the patterning of responses from individuals within labor and environmental organizations. These reports then became the starting point for the development of key findings, such as the importance of bridge brokers who tended to be affiliated with COSH organizations. When discrepancies within the interviews or outlying interviews occurred, ethnographic observations and documents were used to supplement the interviews. In addition to generating themes and reports, the software package NVivo is able to link themes and codes back to specific passages. These passages, which are representative of the key findings, are utilized as quotations in each case study.

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Index

Note: Page numbers with an *f* indicate figures; those with a *t* indicate tables.

Act for a Healthy Massachusetts, 86, 91, 92
Addams, Jane, 25
AFL-CIO, 36, 40, 48, 173, 187–188
  AHT and, 85, 92, 94, 170t
  right-to-know legislation and, 104–105
  schism within, 188, 205–207
  Sierra Club and, 40, 43
Agricultural Workers Organizing Committee, 33
AHT. *See* Alliance for a Healthy Tomorrow
AIWA. *See* Asian Immigrant Women Advocates
Alexander v. Sandoval, 118
Alliance for a Healthy Tomorrow (AHT), 17–18, 62–65, 73–97, 134, 136, 165–189
  AFL-CIO and, 85, 92, 94, 170t
  coalition formation by, 165–173, 170t, 178–184
  ethnographic observations of, 218–219, 218t
  frame bridging and, 21
  future of, 201–209
  history of, 18, 76–85
  identity of, 186–189, 191–192
  interviews for, 216–218, 216t
  IUE-CWA and, 2–3, 64, 81–83, 86
  job blackmail and, 92–94
  Labor Advisory Board of, 219
  legislation sponsored by, 90–92
  MassCOSH and, 87–90
  mission of, 62, 76–77, 79–80
  precautionary principle and, 62–63, 76–85, 169
  right-to-know legislation and, 184–186
  tactics of, 175–177, 187
  University of Massachusetts Lowell and, 75–76, 89–90, 93–94, 97, 183
Alliance for Sustainable Jobs and the Environment (ASJE), 53–57
Alternatives for Community and Environment (ACE), 79
  See also Safer Alternatives Bill
American Chemistry Council, 125
American Civil Liberties Union, 118
American Federation of Labor (AFL), 26, 86, 104
  See also AFL-CIO
American Oil Company, 39
anti-immigration groups. *See* immigration issues
anti-toxics organizations, 10–11, 58–59, 170t
  in California, 139, 149–150
  in Massachusetts, 73–76
  in New Jersey, 100–108

Apollo Alliance, 56
Apple Computers, 134, 159
Arctic National Wildlife Refuge (ANWR), 6, 17, 55, 57
arsenic, 138, 150
asbestos, 29, 38
Asian Immigrant Women Advocates (AIWA), 135, 140, 154, 160, 162, 171
ASJE. *See* Alliance for Sustainable Jobs and the Environment
asthma, 88, 119
AT&T Corporation, 154

Ban Toxics, Not Workers campaign, 152–156, 204
BASF Corporation, 44–46, 49–50, 58
Bay Area Working Group on the Precautionary Principle, 70–71
Beck, Ulrich, 4
Benford, Robert D., 31
Berkeley Precautionary Principle Ordinance (2006), 71
beryllium, 38
Bhopal, India, 98, 130
blackmail. *See* jobs-versus-environment dilemma
Blue-Green Alliance, 207
blue-green coalitions, 13, 16–19, 173–175
  class and, 82–83, 103, 120, 193–194
  cross-movement, 13–15, 132, 199–201, 208–209
  definition of, 13, 173
  future of, 201–209
  health-centric, 7–12, 213
  history of, 23–41
  life course of, 213–214
  local versus national, 19–20
  political opportunities for, 35
  research on, 7, 211–220
  See also specific groups, e.g., Silicon Valley Toxics Coalition
Blue/Green Working Group, 19, 207, 213
Blue Plains Wastewater Treatment Plant, 123–124
Boston Urban Asthma Coalition (BUAC), 88
breast cancer, 71, 77, 78
Breyman, Steve, 94
bridge brokers, 32, 37, 85–90, 96, 137, 172–173, 180–184, 188–189
  See also frame bridging
Brower, David, 54
brownfields, 103, 186
Brown University, 212, 217
building trades, 95, 121
  AFL-CIO and, 104
  AHT and, 83–84
Bush, George W.
  air pollution regulations and, 198
  ANWR drilling and, 6, 17, 55, 57
  chemical plant security and, 125, 130, 185, 202
  Iraq war and, 72
Business and Industry Association, 114
Byster, Leslie, 147

California Department of Industrial Relations, 138
California Rural Legal Assistance, 33
Campaign for Responsible Technology (CRT), 157–159
Campaign to End the Miscarriage of Justice, 154–155
carcinogens, 44, 50, 71, 77, 78, 140–141
Carson, Rachel, 32
Carter, Jimmy, 37
Center for Environmental Health, 70–71
Center on Wisconsin Strategy (COWS), 56
Central Labor Council of Santa Clara County, 141
CFCs (chlorofluorocarbons), 153
Change to Win coalition, 173, 188, 195–199, 205–207
Chemical Facilities Security Act, 127
chemical industry
  cleaner technology for, 85, 88–89, 93–94
  precautionary principle and, 71, 73–76
  right to act and, 108–116, 129–130
  right-to-know legislation and, 98–116
  security concerns with, 122–131, 185, 202
  See also petrochemical industry
Chemical Industry Council, 112
Chemical Security Acts, 124–125, 127
chemical substitution, 61, 84
chlorofluorocarbons (CFCs), 153
chromium, 85, 91, 150
Citizens Clearing House for Hazardous Waste, 11
civil rights movement, 118
  coalitions in, 14, 58, 196
  environmental justice and, 117–118
  women and, 196
  See also race and ethnicity
class
  coalitions and, 82–83, 103, 120, 193–194
  immigration issues and, 11, 49, 205–206
  public health and, 25–26
  toxic waste and, 9, 61, 99
Clawson, Dan, 15, 196, 198
Clean Air Act, 6, 128, 197–198
Clean Computer Campaign (CCC), 158–159
clean energy, 93–95, 97

Cleaner Production, Work Environment, and Occupational Hygiene, 75
Clean Water Action, 197
California, 70–71
Massachusetts, 77–79, 174–175
New Jersey, 103
climate change, 17
clean energy and, 94–95
ozone and, 67, 153
Clinton, Bill, 51, 54
Clinton, Hillary, 124–125, 127
coalitions. *See* blue-green coalitions
Coastal Eagle Point Oil Company, 111
Codey, Richard, 129
Comick, Ted, 81
Committees on Occupational Safety and Health (COSH), 36–38, 42, 43, 170t, 173
bridge-brokering by, 180–182, 188–189
Massachusetts, 63–64, 80–81, 87–90, 97, 181–182
Philadelphia, 36, 100–102, 181
right-to-know campaigns of, 47
Santa Clara, 135
Commoner, Barry, 30
Commonweal, 70–71
Communications Workers of America, 173
in Silicon Valley, 143, 147, 154–155, 160–163, 172
See also International Union of Electronic, Electrical, Salaried, Machine and Furniture Workers-Communications Workers of America (IUE-CWA)
Community Right-to-Know law, 111
Comprehensive Environmental Response, Compensation, and Liability Act. *See* Superfund Act
Congress of Industrial Organizations, 104, 187
See also AFL-CIO
conservationist movement, 25, 28
construction industry. *See* building trades
consumerist approach, 63
Corporate Average Fuel Economy (CAFÉ), 6
Corporate campaigns, 41–48, 55
Corzine, Jon, 124, 125, 127, 129–130
COSH. *See* Committees on Occupational Safety and Health
cotton dust standards, 43
counterframing, 169–170
cross-movement coalitions, 13–15, 132, 199–201, 208–209
Croteau, David, 15

data collection, 216–220
DDT (dichloro-diphenyl-trichloroethane), 32–35, 61
Deep South Center for Environmental Justice, 198–199
Dell Corporation, 159
Democratic Party, 15, 51, 54, 124–127, 150, 167, 212, 215
di-(2-ethylhexyl)phthalate (DEHP), 91
Digital Equipment Corporation (DEC), 153–154
dioxin, 106
direct action tactics, 175–177
document collection, 219–220
Domestic Security Preparedness Task Force (N.J.), 128–129

Earth First!, 11, 52, 53, 56
Earth Summit of 1992, 66
EDF. *See* Environmental Defense Fund (EDF)
EFFE. *See* Environmentalists for Full Employment
Electronics Committee on Safety and Health (ECOSH), 139
Emergency Planning and Community Right-to-Know Act (EPCRA), 98
Endangered Species Act, 52
Engels, Friedrich, 25
Engler, Rick, 100, 107
Environmental Action, 41
Environmental Defense Fund (EDF), 32–35
Environmental Federation (N.J.), 103
Environmentalists for Full Employment (EFFE), 19–20, 40–42, 213
environmental job blackmail. *See* jobs-versus-environment dilemma
environmental justice groups, 48–50, 58, 79, 108, 158, 215
coalitions of, 12–15, 16–17, 170t, 196, 199–201
globalization and, 49, 54
job blackmail and, 3–7, 117–118
semiconductor industry and, 145–146, 151–155, 162
WEC and, 116–122
Environmental League of Massachusetts, 79
Environmental Protection Agency (EPA)
chemical plant security and, 124–125, 130
Coastal Eagle Point Oil Company and, 111
creation of, 42
IBM toxic spill and, 144, 148
epidemiology, 141
ethnicity. *See* race and ethnicity
ethnographic observations, 218–219, 218t
European Union, 4, 46
chemical regulation in, 73
precautionary principle in, 63, 65–67

Fairchild Semiconductor, 135, 140–145, 162
Family and Community Environmental School (FACES), 159–160
fetal protection policies, 154
firefighters, 104, 105, 135, 141–143
Florio, James, 106, 111
formaldehyde, 91
Foster, David, 51–52, 54
Foster, John Bellamy, 6, 11
frame bridging
  bridge brokers and, 180
  coalitions and, 16–17, 31–32, 37, 80–84, 89–90, 96
  definitions of, 21, 31, 179
  See also bridge brokers
frame pyramid, 15
frame transformation, 156, 161–162
Free Trade Area of the Americas (FTAA) summit, 55
Freon, 144
Friends of the Earth, 41, 54

Gauthier, Steve, 82, 86, 87, 183
Geiser, Ken, 75
Geismar (La.), 44–46, 49–50
General Electric (GE), 1–3
German Green Party, 4, 46
Global Climate Change Convention (1992), 67
globalization
  environmental justice groups and, 49, 54
  of high-tech industries, 93–94, 133, 136, 156–161, 172, 193, 208
  WTO and, 6, 23–24, 50–51, 54–56
global warming. *See* climate change
glycol ether, 154
good-neighbor agreements, 109
Goodstein, Eban, 5
Gordon, Robert, 30, 39, 54, 212
Gottlieb, Robert, 20, 25–27
  on consumerism, 63
  on cross-movement coalitions, 40–42, 58
  on occupational safety, 30, 34–36
  on right to know, 185
Gould, Kenneth, 212
Graham, Tolle, 80–81
"green chemistry," 85, 93–94
Green Cleaners Project, 88–89
Green Party (Germany), 4, 46
Greenpeace, 1–3, 42
Grossman, Richard L., 5, 19, 41, 92

Hamilton, Alice, 25–29
Harley-Davidson Corporation, 51
Hart, Gary, 206
Hazard Elimination through Local Participation (HELP) Act, 110–116, 131
hazardous materials
  fact sheets for, 102, 103
  transportation of, 128
Headwaters deal, 52–53
Health and Environmental Justice (HEJ) Project, 158–160
health-and-safety committees, 2, 30–31, 38–39, 164
  See also occupational hazards
Hewlett-Packard, 134, 135
Hicks, Lyndsi, 15
Hoening, Dwight, 140
Homeland Security. *See* U.S. Department of Homeland Security
Houston Principles, 54
Hull House, 25
Humphrey-Hawkins Full Employment Act (1978), 41
Hurricane Katrina, 198
Hurwitz, Charles, 51–54

IBM, 134, 135, 140
  chlorofluorocarbons and, 153
  health claims against, 148, 162, 172
  toxic spill by, 144–145, 147
identity, 186–189, 199–200
  collective, 27–28, 121, 131, 147, 156, 199–200
  consolidation of, 17, 28, 87, 88
immigration issues
  advocacy groups and, 135, 140, 154, 160, 162, 171
  AFL-CIO and, 205–206
  Sierra Club and, 11, 49
  See also race and ethnicity
Industrial Union Council, 104–105, 187
Inhofe, James, 125–127
Institute for America's Future, 56
International Brotherhood of Teamsters
  Change to Win coalition and, 205
  Sierra Club and, 6, 16–19, 23, 50–51, 54–57, 213
International Campaign for Responsible Technology, 158–159
International Union of Electronic, Electrical, Salaried, Machine and Furniture Workers-Communications Workers of America (IUE-CWA), 1–3, 64, 81–83, 86
interviewing techniques, 216–218, 216t
Iraq war, 72
IUE-CWA. *See* International Union of Electronic, Electrical, Salaried, Machine and Furniture Workers-Communications Workers of America

Jasper, James M., 27
Jeffords, James, 124
jobs-versus-environment dilemma, 10, 18, 48, 50, 56, 61
  AHT and, 92–94
  ANWR drilling and, 57
  environmental justice groups and, 3–7, 117–118
  by Maxxam, 52–53
  precautionary principle and, 67–68, 82, 169
  right-to-act legislation and, 113–115
  right-to-know legislation and, 101, 105
  by semiconductor industry, 134, 146
  by St. Lawrence Cement plant, 121
Just Transition Alliance, 47, 203–205

Kaiser Aluminum, 51–54
Kane, Bill, 105, 183
Kaufman, Jay, 90
Kazis, Richard, 5, 92
Kean, Thomas, 106
Kelley, Florence, 25–29
Kennedy, John F., 56
Kirkland, Lane, 206
Kuehne Chemical plant (N.J.), 126

Labor Institute, 46, 195
Labor Law Reform Act (1977), 41
lead poisoning, 29, 91, 103, 150
Leopold, Les, 195, 196, 198
Louisiana Labor-Neighbor Project, 45, 49
Louisville (Ky.) Charter for Safer Chemicals, 71, 201
Love Canal (N.Y.), 47, 99
Lowell Center for Sustainable Production, 64, 77, 78, 93–94
lung disease
  asthma and, 88, 119
  occupational, 2, 29, 38, 86

Maastricht Treaty (1994), 67
Markowitz, Gerald, 29
Massachusetts Committee on Occupational Safety and Health (MassCOSH), 63–64, 80–81, 87–90, 97, 181–182
Massachusetts Public Interest Research Group (MassPIRG), 74, 79, 170t, 174
Maxxam Corporation, 51–54
Mazzocchi, Tony, 30–32, 36, 38, 40, 46–48, 54, 195, 203
McAdam, Doug, 14–15, 166
McCarthy, John D., 14
McCarthy, Joseph, 58
mercury poisoning, 38
methodology, research, 211–220
methyl isocyanate, 98
methyl tertiary butyl ether (MTBE), 69
Meyer, David S., 14
Milirides, Vira, 143
mining industry, 5, 25–26, 29–30
Mobil Corporation, 39
Mondale, Walter, 206
Montague, Peter, 72
Montreal Protocol, 67, 153
Moran, Jim, 102, 194
Mt. Sinai School of Medicine, 111–112
multinational corporations. *See* globalization

National Association for the Advancement of Colored People, 118
National Environmental Policy Act (NEPA), 42
National Farm Workers Association, 33
National Institute for Occupational Health and Safety (NIOSH), 38
National Labor Relations Board, 87
National Resources Defense Council, 118
National Semiconductor, 135
National Toxics Campaign, 11, 38, 45, 47, 109, 174, 185
Natural Resources Defense Council, 186
neoliberalism. *See* globalization
New Directions program, 37, 38, 42–43, 139
New England Farm Workers' Council, 88
New Jersey Business and Industry Association, 112, 114
New Jersey Environmental Federation, 103
New Jersey Environmental Lobby, 102
New Jersey Right to Know and Act Coalition, 108–116
New Jersey Right to Know Coalition, 101–109
New Jersey Work Environment Council. *See* Work Environment Council
New Jersey Worker and Community Right to Know Act, 106–108, 116
NIMBYism ("not in my backyard"), 11, 113, 121, 164, 179
North Sea, convention on, 67
nuclear power plants, 38
nuclear testing, 30

Obach, Brian K., 12–15, 35, 57, 176, 212
OCAW. *See* Oil, Chemical, and Atomic Workers Union
occupational hazards, 7–11, 21, 97, 122, 164
  of high-tech industries, 133–163
  inadvertently caused by environmental regulations, 61, 81–82
  labor movement and, 25–41, 193–194
  lung disease from, 2, 29, 38, 86
  of mining, 25–26, 29–30
  pesticides as, 32–33, 39, 61

occupational hazards *(continued)*
precautionary principle for, 62, 65
pregnancy and, 153–154, 204
public health and, 25–28
of semiconductor industry, 138–140, 144–145
toxic circles and, 8–10, 9f
See also health-and-safety committees
Occupational Safety and Health Act (OSHAct), 30, 31, 42
farm workers and, 35–36
precautionary principle and, 68
Occupational Safety and Health Administration (OSHA)
New Directions program of, 37, 38, 42–43, 139
OCAW and, 38
Ochsner, Michelle, 103
Office of Technical Assistance (Mass.), 91
Oil, Chemical, and Atomic Workers Union (OCAW), 58–60, 197–198, 203
BASF campaign by, 44–46, 49
occupational health and, 30–32
OSHA and, 38
Shell strike by, 31, 39–40, 42–44
owl, spotted, 5–6, 52–53
ozone depletion, 67, 153
See also climate change

Pacific Lumber Company, 52–54
Pacific Telephone, 143
Paper, Allied-Industrial, Chemical and Energy Workers (PACE), 197–198
Park, Lisa A., 135, 146
PBDE (polybrominated diphenyl ethers), 9
Pellow, David N., 135, 146
perchloroethylene, 91
pesticides, 32–33, 39, 61, 102
petrochemical industry
health-and-safety committees in, 39
public health issues of, 29
right-to-act legislation and, 111
See also chemical industry
Philadelphia Area Project on Occupational Safety and Health (PhilaPOSH), 36, 100–102, 181
PIRG. *See* Public Interest Research Group
Polletta, Francesca, 27
pollution prevention (P2) approach, 67
See also precautionary principle
polybrominated diphenyl ethers (PBDE), 9
polyvinyl chloride (PVC), 84–85, 95
Pope, Carl, 54
precautionary principle, 62–97, 179–180, 202
AHT and, 62–63, 76–85, 169
components of, 68–70
consumerist approach versus, 63
cost of, 66
criticisms of, 72–73, 79–80
definition of, 63
history of, 67–68
legislation for, 90–92
Louisville Charter on, 71
Proposition 65 and, 150–151
reasons for, 64–66
right to know and, 74, 195
San Francisco and, 70–71
unintentional consequences of, 61, 81–82
Wingspread conference on, 64–68
Precautionary Principle Project (PPP), 77–78
pregnancy risks, 153–154
prevention-oriented approach. *See* precautionary principle
Progressive Era, 20, 25–28, 57
Project on Health and Safety in Electronics, 139
Proposition 65 (Calif.), 150–151
Public Health Institute, 207
Public Health Service, 26–27
Public Interest Research Group (PIRG), 74, 79, 170t, 174
Pulido, Laura, 49

qualified community organizations (QCOs), 113–114

race and ethnicity, 117–118, 120
advocacy groups for, 135, 140, 154, 160, 162, 171
immigrants and, 11, 49, 205–206
See also civil rights movement
radioactive waste, 38
Ravenswood Aluminum Company, 51
Reagan, Ronald, 38, 42–43, 139
Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH), 73, 201
Republican Party, 15, 42–43, 124–127, 149–150, 215
See also Bush, George W.
research methodology, 211–220
Resor, Pamela, 90
responsible care codes, 129
right-to-know legislation, 18, 59, 98–108, 131–132, 184–186
federal, 110, 111, 152–153
occupational health and, 30, 47
precautionary principle and, 74, 195
right to act and, 108–116, 129–130, 167–168
semiconductor industry and, 135–137

Rio Declaration on Environment and Development, 66
Romney, Mitt, 91
Rose, Fred, 180, 212
Rosner, David, 29
Ross, Lorrain, 141
Royal Dutch/Shell Corporation, 31, 39–40, 42–44

Safe Drinking Water and Toxic Enforcement Act, 150–151
Safer Alternatives Bill (2007), 86, 91, 92, 180
Safety, Not Secrecy campaign, 123, 129–130
San Jose State University, 184
Santa Clara Center for Occupational Safety and Health (SCCOSH), 135, 171
  Fairchild Semiconductor and, 141
  formation of, 139–140
  SVTC and, 145–149, 154, 160, 162, 171–172, 181
Santa Clara Committee on Occupational Health, 36
Santa Clara County Labor Council, 144–145, 152
SARA Title III, 110, 111
Saugus Riverworks (Mass.), 1–3
SCCOSH. *See* Santa Clara Center for Occupational Safety and Health
Science and Environmental Health Network, 64–65, 67, 77
Seattle WTO protest (1999), 6, 23–24, 50–51, 54–56
security concerns, of chemical plants, 122–131, 185, 202
SEIU. *See* Service Employees International Union
semiconductor industry
  antiunion views of, 135, 145–147
  environmental justice groups and, 145–146, 151–155, 162
  globalization of, 136, 156–161
  Mondale and, 206
  production hazards in, 135, 137–140
  right-to-known legislation and, 135–137
Semiconductor Manufacturing Technology (SEMATECH), 157
Service Employees International Union (SEIU), 173, 205, 206
Sheehan, Helen E., 9–10
Shell Oil Company, 31, 39–40, 42–44
Siegel, Lenny, 141
Sierra Club, 42, 186
  AFL-CIO and, 40, 43
  EFFE and, 40, 41
  environmental justice groups and, 118
  immigration issues and, 11
  Massachusetts, 79
  Maxxam campaign of, 52–54
  New Jersey, 103
  pesticides and, 32
  Teamsters and, 6, 16–19, 23, 50–51, 54–57, 213
  USW and, 51
Silent Spring (Carson), 32
Silent Spring Institute, 78
Silicon Valley Toxics Coalition (SVTC), 3, 17–19, 21–22, 133–163, 165–189
  Ban Toxics, not Workers campaign of, 152–156, 204
  coalition formation by, 165–173, 170t, 178–184
  ethnographic observations of, 218–219, 218t
  global campaigns of, 156–161, 193
  history of, 18–19, 135–136, 141, 145–146
  identity of, 186–189, 191–192
  interviews for, 216–218, 216t
  loss of local groups by, 161–163
  Proposition 65 and, 150–151
  right-to-know legislation and, 135–137, 184–186
  SCCOSH and, 145–149, 154, 160, 162, 171–172, 181
  tactics of, 176–177
silicosis, 29
Smith, Ted, 135, 146, 147
Smizik, Frank, 90
Snow, David A., 31, 80, 156
social movement coalitions. *See* blue-green coalitions
South Camden Citizens in Action, 116–122
Southwest Network for Environmental and Economic Justice, 158
SSCIA v. St. Lawrence, 118
Standard Oil Company, 39
steelworkers. *See* United Steelworkers
Stern, Andrew, 205
St. Lawrence Cement plant (N.J.), 117–122, 132
strontium 90, 30
Superfund Act, 11, 47, 103, 106
  Camden, N.J., and, 117
  Silicon Valley and, 143, 144, 146, 152–153, 155
Superfund for Workers, 46–47
Sustainable Water Program, 158
SVTC. *See* Silicon Valley Toxics Coalition
Sweden, 69
Sweeny, John, 205
Szasz, Andrew, 58

Taft-Hartley Act (1947), 28
Tarrow, Sidney, 34
Tauzin, Billy, 127
Teamsters. *See* International Brotherhood of Teamsters
terrorist attacks, on chemical plants, 122–131, 185, 202
Texaco Corporation, 39
Tickner, Joel, 68–70
timber industry, 5–6, 11, 52–53
Tolman, Steven, 90
Toxic Catastrophe Prevention Act (1986), 130
toxic circles, 8–10, 9f
Toxics Action Center, 79, 174
Toxics Coalition, 156
Toxics Release Inventory (TRI), 153, 185
Toxic Substances Control Act (1976), 41
Toxics Use Reduction Act (TURA), 73–76, 90, 91
Toxics Use Reduction Institute (TURI), 75, 89, 91, 166, 185
Trade Union Confederation, European, 73
transnational corporations. *See* globalization
transportation, of hazardous materials, 128
trichloroethane (TCA), 140, 144
trichloroethylene (TCE), 139, 140, 144
Tufts University, 183
"Turtles and Teamsters" alliance, 6, 16–19, 23, 50–51, 54–57, 213

United Auto Workers, 105
United Electrical, Radio, and Machine Workers of America (UE), 147
United Farm Workers of America (UFW), 32–35, 58
United Food and Commercial Workers, 205
United Gas, Coke, and Chemical Workers Union, 30
United Mine Workers (UMW), 29–30
United Nations Earth Summit (1992), 66
United Steelworkers (USW), 22–24, 41, 58, 173, 196–199, 207
  chemical plant security and, 202
  clean air initiatives by, 46
  Earth First! and, 53
  Kaiser Aluminum strikes by, 51–54
  Louisville Charter and, 71
  Ravenswood (W.Va.) strike by, 51
  Sierra Club and, 51
United Technologies, 152
UNITE HERE, 173, 205
University of California, Berkeley, 184
University of Massachusetts Lowell
  AHT and, 64, 75–76, 89–90, 93–94, 97, 183
  Toxics Use Reduction Institute at, 75, 89, 91, 166, 185
urban environmentalism, 25–28
Urban Habitat, 71
U.S. Department of Homeland Security, 124–127, 130, 202

Van Dyke, Nella, 12–14, 34–35

Wagner Act (1935), 28
warming, global. *See* climate change
WEC. *See* Work Environment Council
Wedeen, Richard P., 9–10
Western Massachusetts Committee on Occupational Safety and Health (WMCOSH), 64, 182
West Nile virus, 77, 78
Whitman, Christine Todd, 118–119, 125
Whittier, Nancy, 14
Wingspread conference (1998), 67–68, 77
Wingspread Statement on Precautionary Principle, 64–65, 68, 70, 78
women
  breast cancer and, 71, 77, 78
  civil rights of, 196
  pregnancy risks for, 153–155
Woodhouse, Edward J., 94
Work Environment Council (WEC), 3, 17–18, 21, 131–132, 134–136, 165–189
  Change to Win coalition and, 195
  chemical plant security and, 123, 128–131, 185
  coalition formation by, 165–173, 170t, 178–184
  environmental justice and, 116–122
  ethnographic observations of, 218–219, 218t
  future of, 201–209
  history of, 100–108, 119–120
  identity of, 186–189, 191–192
  interviews for, 216–218, 216t
Workers Health Bureau, 26, 36
World Trade Organization (WTO), 6
  Seattle protests of, 6, 23–24, 50–51, 54–56
  See also globalization
worst-case scenarios, 126–127

Zald, Mayer N., 14

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